Forensic Environmental Services, Inc.

113 John Robert Thomas Drive The Commons at Lincoln Center Exton, Pennsylvania 19341

Telephone: (610) 594-3940 Telecopier: (610) 594-3943

April 8, 2010

Kenneth Thiessen, Certified Engineering Geologist Oregon Dept. of Environmental Quality NW Region Cleanup Program 2020 SW 4th Ave, Ste, 400, Portland, OR 97201 (503) 229-6015

RE: Second Stormwater Sampling Report GS Roofing Products, 6350 NW Front Avenue Portland, Oregon

Dear Mr. Thiessen:

Per the Stormwater Assessment Workplan (SWAWP) dated January 2009, the SWAWP Addendum and response dated April 2009, and final Oregon Dept. of Environmental Quality (DEQ) comments and approval dated May 21, 2009, Forensic Environmental Services, Inc. (FES), on behalf of CertainTeed Corporation (CertainTeed), has prepared this letter report summarizing stormwater sampling activities conducted at the GS Roofing Products, 6350 NW Front Avenue, Portland, Oregon on February 23, 2010.

This sampling report, which was prepared and submitted within 30 days of receipt of the stormwater sampling laboratory data package (March 10, 2010), includes:

- Introduction;
- Discussion of DEQ correspondence dated February 16, 2010;
- A review of the February 23, 2010 sampling activities and any deviations from the sampling plan;
- Copies of field documentation (see Appendix A);
- Copies of the laboratory report and chain-of-custody form (see Appendix A);
- Data summaries in paper and electronic format (see Table 2, CD enclosed); and
- A discussion of the compounds detected, any compounds detected above their respective SLV, and the magnitude of the exceedances.

Introduction

Catch basin and stormwater sampling locations, and the associated analytical suites were finalized in the January 2009 SWAWP and the May 2009 DEQ approval letter. Following receipt of the DEQ SWAWP approval letter dated May 21, 2009, CertainTeed made preparations for sample collection including contracting TestAmerica, Inc. of Portland (TestAmerica) as the field consultant.

Catch basin sediment samples were collected by TestAmerica in July 2009, and the results were discussed in the Catch Basin Sediment Sampling Report submitted by FES on September 24, 2009. The initial stormwater sampling even was completed on October 21, 2009, and the results were discussed in the Initial Stormwater Sampling Report submitted by FES on December 3, 2009. A second stormwater sampling event was completed on November 7, 2009; however, the results were qualified because the storm did not meet the storm event criteria (see next page). Stormwater sampling locations (Outfall A & Outfall B) are depicted on Figure 1, and the analytical suite proposed for each sampling location is summarized in Table 1.

Discussion of DEQ Correspondence dated February 16, 2010

The December 2009 Initial Stormwater Sampling Report noted that contingent parameters polychlorinated biphenyls (PCBs), organochlorine pesticides, and herbicides were not detected in the October 21, 2009 stormwater samples, and therefore, per the DEQ-approved SWAWP, samples would not be collected for these contingent analytes during subsequent stormwater sampling events. However, correspondence from DEQ dated February 16, 2010 (and received on February 19, 2010) requested that PCBs and organochlorine pesticides be analyzed during subsequent stormwater sampling events. Unfortunately, TestAmerica had already collected the February stormwater samples before these changes were communicated to field sampling personnel. Per the DEQ request, stormwater samples will be collected for analysis of PCBs and organochlorine pesticides during the next stormwater sampling event.

The February 16, 2010 DEQ correspondence requested that CertainTeed collect and analyze sediment samples from catch basin CB1-5 for PCBs and organochlorine pesticides, and if present, collect and analyze sediment samples from catch basin SP1-B for the full analysis suite (sediments were not present at this location in July 2009). The requested sediment samples will be collected during the Second Quarter of 2010.

The February 16, 2010 DEQ correspondence also requested that CertainTeed collect sediment and stormwater samples from a storage area that CertainTeed was leasing on the adjacent Arkema (Atofina) property. As discussed with DEQ, CertainTeed has terminated its lease arrangement with Arkema and removed all materials formerly stored in the leased area. Arkema has agreed to complete the requested sampling activities, which they will independently report to the DEQ.

DEQ also requested that, per the follow up letter to the City of Portland inspection on October 27, 2009, CertainTeed determine if the lateral pipe entering catch basin CB1-6 extends onto the Arkema property. CertainTeed inspected the lateral pipe during a March rainfall event and determined the pipe is not an active water drain from the Arkema property (or elsewhere). However, as a precaution the lateral pipe will be sealed at catch basin CB1-6 to ensure the pipe cannot serve as a conduit for water from the Arkema property.

Storm Event Criteria

Storm event criteria are as follows: 1) antecedent dry period of at least 24 hours (less than 0.1 inch); 2) minimum rainfall of at least 0.2 inches; and 3) duration of at least 3 hours. Weather conditions at the time of sampling on February 23, 2010 were cloudy with continuous rain, calm winds, and a temperature of approximately 46°F. Based on precipitation data obtained from the nearest City of Portland HYDRA Station (No. 193, Astor Elementary School, 5601 N. Yale St., located approximately 1.0 mile northeast of the site), light rainfall started between 10:00 am and 11:00 am PST on February 23, 2010. The last significant rainfall event in the area (i.e., more than 0.1 inches) had ended seven days earlier on February 16, 2010.

No rainfall was recorded during the previous 24 hours, total rainfall was 0.44 inches, and continuous precipitation lasted approximately 17 hours, so the February 23, 2010 rainfall meets the storm event criteria. A temporal rainfall distribution graph, as outlined in the Oregon Department of Environmental Quality (DEQ) *Guidance for Evaluating the Stormwater Pathway at Cleanup Sites* public review draft dated May 1, 2008, is provided as Figure 2.

TestAmerica mobilized to the GS Roofing site on February 23, 2010, and stormwater sampling was initiated at approximately 13:20 pm Pacific Standard Time (PST). Stormwater discharge did not begin until approximately 13:15 pm; therefore, this event constitutes a "first-flush" sampling event (i.e., samples were collected within 30 minutes of the start of stormwater discharge).

Sampling Methods and Documentation

Stormwater samples were collected directly from each outfall sampling location into laboratory supplied bottleware. Based on the available information provided by TestAmerica, sampling methods generally followed the methodology identified in the Washington Department of Ecology 2005 document *How to Do Stormwater Sampling: A guide for industrial facilities*. Field sampling documentation provided by TestAmerica is included with the laboratory report (see Appendix A).

Analytical Suite

The analytical suite for each stormwater sample is listed in Table 1. Each stormwater sample was analyzed for total suspended solids (TSS) via Standard Method 2540D, total organic carbon (TOC) via Standard Method 5310C, volatile organic compounds (VOCs) via EPA Method 8260B, selected target analyte list (TAL) metals via EPA Methods 200.7/200.8/7470A, total petroleum hydrocarbons-diesel range organics (TPH-DRO), TPH-heavy oil range hydrocarbons (TPH-HORH), and TPH-gasoline range organics (TPH-GRH) via Methods NWTPH-Dx & NWTPH-Gx, semi-volatile organic compounds (SVOCs) via EPA Method 8270C, and polyaromatic hydrocarbons (PAHs) and phthalates via EPA Method 8270M-SIM.

The selected analytical laboratory, TestAmerica, attempted to achieve the screening level values (SLVs) listed in Table 3-1 of the Portland Harbor Joint Source Control Strategy (JSCS) dated December 2005 to the extent practicable. All analyses met the laboratory Method Reporting Limit (MRL) value listed in Table 3-1 of the JSCS December 2005 document; however, several MRLs exceeded the corresponding SLV.

Deviations from the Approved SWAWP

The following deviation from the approved SWAWP were noted: 1) some specified Quality Assurance and Quality Control (QA/QC) samples were not collected on February 23, 2010 (see discussion under "Data Quality Assurance and Quality Control"). No other deviations from the approved SWAWP were noted.

Sampling Results and Discussion

Stormwater sampling results are summarized in Table 2. A copy of the laboratory analytical data report is provided as Appendix A.

No VOCs were detected in either of the February 23, 2010 samples via EPA Method 8260B (see Table 2). Samples were not collected for VOC analysis during the initial stormwater sampling event in October 2009. As noted in the December 2009 stormwater sampling report, and approved in the February 2010 DEQ correspondence, if VOCs are not detected close to or above the SLVs during the two remaining stormwater sampling events, no additional sampling for VOCs will be performed.

No SVOCs were detected via EPA Method 8270C in the sample collected on February 23, 2010 from Outfall B (see Table 2), but 3,4-methylphenol was detected in the stormwater sample from Outfall A at a concentration of 5.69 micrograms per liter (μ g/L), which is well below the corresponding SLV (180 μ g/L). One phthalate (dimethylphthalate; concentration 0.956 μ g/L) and two PAHs (fluoranthene and phenanthrene; both concentrations 0.096 μ g/L) were detected via EPA Method 8270M-SIM in the February 2010 stormwater sample from Outfall A. The detected phthalate and PAH concentrations are below the corresponding SLVs (3 μ g/L and 0.2 μ g/L, respectively).

One phthalate (bis[2-ethylhexyl]phthalate; concentration 1.01 μ g/L) and four PAHs (chrysene, fluoranthene, phenanthrene, and pyrene) were detected in the February 2010 stormwater sample from Outfall B. The detected phthalate concentration was below the corresponding SLV (2.2 μ g/L), but the PAH concentrations exceeded their corresponding SLVs. The presence of PAHs is often associated with run-off from asphalt surfaces, which are present in the vicinity of Outfall B (i.e., Drainage Basin 001).

TPH-GRH was not detected in either of the February 2010 stormwater samples, but TPH-DRO and TPH-HORH were detected in the Outfall A sample at concentrations of 0.764 milligrams per liter (mg/L) and 0.960 mg/L, respectively, and in the Outfall B sample at concentrations of 1.04 mg/L and 1.51 mg/L, respectively. The presence of TPH-HORN and TPH-DRO in the stormwater samples is attributed to: 1) parking lot runoff; and/or 2) ongoing industrial activities (asphalt shingle manufacturing).

Of the 13 TAL metal analytes, nine were detected in the February 2010 stormwater samples from both Outfall A and Outfall B (see Table 2). Detected metal concentrations were generally higher in the stormwater sample from Outfall B, but concentrations of copper and zinc were slightly higher in the Outfall A sample. Detected metal concentrations were generally higher in February 2010 (first-flush event) as compared with the results from the October 2009 sampling event.

Six metals exceeded their respective SLVs in both stormwater samples (see Table 2): aluminum (maximum concentration 2,560 μ g/L), arsenic (maximum concentration 1.26 μ g/L), copper (maximum concentration 76.2 μ g/L), lead (maximum concentration 11.8 μ g/L), manganese (maximum concentration 205 μ g/L), and zinc (maximum concentration 167 μ g/L).

There are no identified on-site sources for the aluminum, arsenic, lead, and manganese detected in the samples (however, trace amounts of aluminum are present in the "Green Diamond" sand used at the facility). Copper and zinc are present in raw materials used at the GS Roofing Site.

The two stormwater samples were also analyzed for TSS and TOC. Results are presented in Table 2. The TSS concentration was 60 mg/L in both samples collected during February 2010 (versus concentrations ranging from 6.86 mg/L to 10.0 mg/L in October 2009), and TOC ranged from 14.5 mg/L (Outfall B) to 19.8 mg/L (Outfall A). The stormwater pH (field measurement) was 7.27 at Outfall A and 6.99 at Outfall B.

Data Quality Assurance and Quality Control (QA/QC)

QA/QC measures included the collection of field duplicate samples, VOC matrix spike/matrix spike duplicate (MS/MSD) samples, and trip and equipment blanks. The only analyte detected in the VOC trip blank associated with the February 23, 2010 stormwater samples was chloroform at a concentration of 3.55 μ g/L. Equipment blanks were not prepared because the February 2010 stormwater samples were collected directly from the outfalls into laboratory bottleware.

Although the laboratory ran internal duplicate and VOC MS/MSD samples, field duplicate samples were not collected by TestAmerica on February 23, 2010. Field sampling procedures were reviewed with TestAmerica. Field duplicate samples and VOC MS/MSD samples will be collected during subsequent sampling events.

Data validation was performed in accordance with USEPA procedures and the site-specific Quality Assurance Project Plan (QAPP). The Quality Control Summary for the laboratory analytical data package was reviewed.

Several nonconformances were noted including: 1) the MS for benzene and the MS/MSD for 1,1-dichloroethene were below acceptance limits, but the MSD for benzene and the laboratory control spike (LCS) and LCS duplicate recoveries for both analytes were within acceptance limits, and neither VOC analyte was detected; 2) the relative percent difference (RPD) for the TOC duplicate exceeded the acceptance limit; 3) the

reporting limits for TPH-Gx, VOCs, and acenaphthalene (via EPA 8270M-SIM) were raised due to sample matrix effects; and 4) the TOC samples were received in inappropriate sample containers. The QA/QC results do not indicate any major qualifications or rejections of any of the reported data.

Future Sampling Events and Reporting

Per the DEQ-approved SWAWP, subsequent interim stormwater sampling reports will be submitted to the DEQ on at least a quarterly basis. Another stormwater sampling event is currently scheduled for April 2010, and supplemental catch basin sediment sampling is also scheduled for April 2010. The next interim report, which will discuss stormwater and catch basin sediment sampling events completed in April and May 2010, will be submitted to DEQ no later than June 30, 2010.

Based on the current sampling schedule, it is anticipated that the four stormwater sampling events will not be completed until Second or Third Quarter 2010. A comprehensive report, which will include a data summary and evaluation, a summary of any recommended stormwater source control measures and/or best management practices (BMPs), and a proposed Performance Monitoring Workplan, will be submitted to the DEQ within 60 days of receipt of the final stormwater sampling laboratory data package.

Per your request, one bound, one unbound, and one electronic copy (CD includes data summary table in Excel format) of this report are enclosed. If you have any questions or comments on the above information, please feel free to contact me at (610) 594-3940.

ORESON

Sincerely yours,

FORENSIC ENVIRONMENTAL SERVICES, INC.

Robert W. Zei, Ph.D., RG #G2076

Sr. Project Manager

Renza.

cc: Anthony Ordway, CertainTeed

Matthew Prue, CertainTeed

Lauren Alterman, Esq., Saint-Gobain Corporation



Table 1 Sample Summary Matrix - February 2010 Stormwater Sampling Event Stormwater Assessment Program (SAP) GS Roofing Products Site

Portland, Oregon

Matrix: Stormwater page 1 of 2

Parameter	Analytical Method	Sample Number and Locations	Sample Volumes, Container(s), and Preservative	Analysis Holding Time
Total Suspended Solids (TSS)	SM 2540D	Two SPs: Outfall A Outfall B	250 mL 250 mL poly or glass Cool to 4°C	7 days
Total Organic Carbon (TOC)	EPA 9060	Two SPs: Outfall A Outfall B	250 mL $250 \text{ mL amber glass}$ H_3PO_4 to pH <2, Cool to $4^{\circ}C$	28 days
Target Analyte List (TAL) Metals	EPA 6010B/6020/ 7470	Two SPs: Outfall A Outfall B	250 mL 250 mL poly $\text{HNO}_3 \text{ to pH} < 2$, Cool to 4°C	6 months
NWTPH Dx, HORH	NWTPH Dx	Two SPs: Outfall A Outfall B	1 L 1 L amber glass HCl to pH <2, Cool to 4°C	14 days

SP = sampling point; Dx = diesel; HORH = heavy oil range hydrocarbons; L = liter; mL = milliliters.

Table 1 Sample Summary Matrix - February 2010 Stormwater Sampling Event Stormwater Assessment Program (SAP)

GS Roofing Products Site Portland, Oregon

Matrix: Stormwater page 2 of 2

Parameter	Analytical Method	Sample Number Sample Volumes, Container(s), and Locations and Preservative					
NWTPH Gx	NWTPH Gx	Two SPs: Outfall A Outfall B	3 x 40 mL glass vials w/teflon-lined cap (no headspace) HCl to pH <2, Cool to 4°C	14 days			
Volatile Organic Compounds (VOCs)	EPA 8260B	Two SPs: Outfall A Outfall B	3 x 40 mL glass vials w/teflon-lined cap (no headspace) HCl to pH <2, Cool to 4°C	14 days			
Semi-Volatile Organic Compounds (SVOCs)	EPA 8270C	Two SPs: Outfall A Outfall B	1 L 1 L amber glass Cool to 4°C	7 days			
PAHs & Phthalates	EPA 8270M- SIM	Two SPs: Outfall A Outfall B	1 L 1 L amber glass Cool to 4°C	7 days			

SP = sampling point; Gx = gasoline; L = liter; mL = milliliters.

Table 2
Stormwater Sampling Results - February 23, 2010
GS Roofing Products Site
Portland, Oregon

	SLV (DEQ 2008) (μg/L)	Laboratory MDL (µg/L)	Laboratory MRL (µg/L)	Outfall A (µg/L)	Outfall B (µg/L)	Trip Blank (μg/L)							
	Total Suspended Solids (TSS) via SM 2540D												
Total Suspended Solids (TSS)			10000	60.0	60.0	-							
	TOC	via EPA Mo	ethod 9060	•									
Total Organic Carbon			1000	19.8	14.5	<u> </u>							
	pH via EPA Method 150.1												
pH (standard units)				7.27	6.99	1 -							
Metals via EPA Method 6010B/6020/7470													
Aluminum	50		100	1,530	2,560	-							
Antimony	6		1.00	1.16	1.24	-							
Arsenic	0.045		1.00	1.18	1.26	-							
Cadmium	0.094		1.00	<1.00	<1.00	-							
Chromium, total	100		2.00	9.85	15.3	-							
Copper	2.7		2.00	76.2	44.0	-							
Lead	0.54		1.00	11.8	7.40	-							
Manganese	50		2.00	127	205	-							
Mercury	0.77		0.200	< 0.200	< 0.200	-							
Nickel	16		2.00	4.64	5.24	-							
Selenium	5		1.00	<1.00	<1.00	-							
Silver	0.12		1.00	<1.00	<1.00	-							
Zinc	36		10.0	167	157	-							
	TPH via N	WTPH-Dx	& NWTPH	-Gx									
TPH Diesel			236/238	764	1,040	-							
TPH-Gasoline			160	<160	<160	-							
TPH Heavy Oil			472/476	960	1,510	-							
Vola	tile Organic (Compounds	via EPA Me	thod 8260I	3								
Acetone	1500		50.0	<50.0	<50.0	<25.0							
Benzene	1.2		2.00	<2.00	<2.00	<1.00							
Bromochloromethane			2.00	<2.00	<2.00	<1.00							
Bromodichloromethane	1.1		2.00	<2.00	<2.00	<1.00							
Bromoform	8.5		2.00	<2.00	<2.00	<1.00							
Bromomethane	8.7		10.00	<10.0	<10.0	<5.00							
2- Butanone (MEK)	7,100		20.0	<20.0	<20.0	<10.0							
Carbon Disulfide	0.92		20.0	<20.0	<20.0	<10.0							
Carbon Tetrachloride	0.51		2.00	<2.00	<2.00	<1.00							
Chlorobenzene	50		2.00	<2.00	<2.00	<1.00							
Chlorodibromomethane	0.79		2.00	<2.00	<2.00	<1.00							
Chloroethane	23		2.00	<2.00	<2.00	<1.00							

Table 2
Stormwater Sampling Results - February 23, 2010
GS Roofing Products Site
Portland, Oregon

	SLV	Laboratory	Laboratory	Outfall	Outfall	. D. I
	(DEQ 2008)	MDL	MRL	\mathbf{A}	В	Trip Blank
	(μg/L)	(μg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Volatile (Organic Com					
Chloroform	0.17		2.00	< 2.00	< 2.00	3.55
Chloromethane	2.1		10.0	<10.0	<10.0	<5.00
1,2- Dibromoethane (EDB)	0.033		2.00	<2.00	< 2.00	<1.00
1,1- Dichloroethane	47		2.00	<2.00	< 2.00	<1.00
1,2- Dichloroethane (EDC)	0.73		2.00	<2.00	< 2.00	<1.00
cis-1,2-Dichloroethene	61		2.00	<2.00	< 2.00	<1.00
trans-1,2-Dichloroethene	100		2.00	<2.00	< 2.00	<1.00
1,2- Dichloropropane	0.97		2.00	<2.00	< 2.00	<1.00
cis-1,3-Dichloropropene	0.055		2.00	<2.00	< 2.00	<1.00
trans-1,3-Dichloropropene	0.055		2.00	<2.00	< 2.00	<1.00
Dibromomethane	61		2.00	<2.00	< 2.00	<1.00
Dichlorodifluoromethane	390		10.0	<10.0	<10.0	< 5.00
Ethylbenzene	7.3		2.00	<2.00	< 2.00	<1.00
2- Hexanone	99		20.0	<20.0	<20.0	<10.0
Isopropylbenzene	660		4.00	<4.00	<4.00	<2.00
Methylene chloride	8.9		10.0	<10.0	<10.0	<5.00
Methyl tert-butyl ether	37		2.00	<2.00	< 2.00	<1.00
4- Methyl-2-Pentanone (MIBK)	170		10.0	< 5.00	< 5.00	<5.00
Styrene	100		2.00	<2.00	< 2.00	<1.00
1,1,1,2- Tetrachloroethane	2.5		2.00	<2.00	< 2.00	<1.00
1,1,2,2- Tetrachloroethane	0.33		2.00	<2.00	< 2.00	<1.00
Tetrachloroethene (PCE)	0.12		2.00	<2.00	< 2.00	<1.00
Toluene	9.8		2.00	<2.00	< 2.00	<1.00
1,1,1- Trichloroethane (TCA)	11		2.00	<2.00	< 2.00	<1.00
1,1,2- Trichloroethane	1.2		2.00	<2.00	< 2.00	<1.00
Trichloroethene (TCE)	0.17		2.00	<2.00	< 2.00	<1.00
Trichlorofluoromethane	1,300		2.00	<2.00	< 2.00	<1.00
1,2,3- Trichloropropane	0.0095		2.00	<2.00	< 2.00	<1.00
Vinyl Chloride	0.015		2.00	<2.00	<2.00	<1.00
m,p-Xylene	1.8		4.00	<4.00	<4.00	<1.00
o-Xylene	13		2.00	<2.00	<2.00	<2.00
Xylenes (total)	200		6.00	<6.00	<6.00	<3.00

Table 2
Stormwater Sampling Results - February 23, 2010
GS Roofing Products Site
Portland, Oregon

	SLV	Laboratory	Laboratory	Outfall	Outfall						
	(DEQ 2008)	MDL	MRL	A	В	Trip Blank					
	(μg/L)	(μg/L)	(μg/L)	μg/L)	μg/L)	(µg/L)					
Carrie VI						<u> </u>					
Semi-v	olatile Organi			vietnoa 82	/0C						
		en-Containing				П					
Benzoic Acid	42		47.6	<47.6	<47.6	-					
Benzyl Alcohol	8.6		9.52	<9.52	<9.52	-					
Dibenzofuran	3.7		4.76	<4.76	<4.76	_					
Isophorone	71		4.76	<4.76	<4.76	-					
Halogenated Compounds											
1,2,4-Trichlorobenzene	8.2		4.76	<4.76	<4.76	-					
1,2-Dichlorobenzene	49		4.76	<4.76	<4.76	-					
1,3-Dichlorobenzene	14		4.76	<4.76	<4.76	-					
1,4-Dichlorobenzene	2.8		4.76	<4.76	<4.76	-					
2-Chloronaphthalene	490		4.76	<4.76	<4.76	-					
3,3'-Dichlorobenzidine	0.028		4.76	<4.76	<4.76	-					
4-Bromophenyl-phenyl ether			4.76	<4.76	<4.76	-					
4-Chloroaniline	150		19.0	<19.0	<19.0	-					
4-Chlorophenyl-phenyl ether	0.06		4.76	<4.76	<4.76	-					
Bis-(2-chloroethoxy) methane			9.52	<9.52	<9.52	-					
Bis-(2-chloroethyl) ether	0.06		4.76	<4.76	<4.76	-					
Hexachlorobenzene	0.00029		4.76	<4.76	<4.76	-					
Hexachlorobutadiene	0.86		9.52	<9.52	<9.52	_					
Hexachlorocyclopentadiene	5.2		9.52	<9.52	<9.52	_					
Hexachloroethane	3.3		9.52	<9.52	<9.52	-					
	Org	anonitrogen C	ompounds								
2,4-Dinitrotoluene	3.4		4.76	<4.76	<4.76	-					
2,6-Dinitrotoluene	37		4.76	<4.76	<4.76	-					
2-Nitroaniline	110.0		4.76	<4.76	<4.76	-					
3-Nitroaniline	3.2		9.52	<9.52	<9.52	-					
4-Nitroaniline	3.2		9.52	<9.52	<9.52	-					
Nitrobenzene	3.4		4.76	<4.76	<4.76	-					
N-Nitroso-di-n-propylamine	0.0096		9.52	<9.52	<9.52	-					
N-Nitrosodiphenylamine	6		4.76	<4.76	<4.76	-					
	Pheno	ls and Substitu	ited Phenols	-							
2,4,5-Trichlorophenol	3600		4.76	<4.76	<4.76	-					
2,4,6-Trichlorophenol	2.4		4.76	<4.76	<4.76	-					
2,4-Dichlorophenol		4.76	<4.76	<4.76	-						
2,4-Dimethylphenol	730		9.52	<9.52	<9.52	-					
2,4-Dinitrophenol	73		23.8	<23.8	<23.8	-					
2-Chlorophenol	30		4.76	<4.76	<4.76	1 - 1					

Table 2
Stormwater Sampling Results - February 23, 2010
GS Roofing Products Site
Portland, Oregon

	SLV (DEQ 2008) (μg/L)	Laboratory MDL (µg/L)	Laboratory MRL (µg/L)	Outfall A (µg/L)	Outfall B (µg/L)	Trip Blank (µg/L)							
Semi-Volat	tile Organic C												
		nd Substituted											
2-Methylphenol (o-Cresol)	13		9.52	<9.52	<9.52	-							
2-Nitrophenol	150		4.76	<4.76	<4.76	-							
4-Chloro-3-methylphenol			4.76	<4.76	<4.76	-							
3,4-Methylphenol	180		4.76	5.69	< 5.69	-							
4-Nitrophenol	150		23.8	<23.8	<23.8	-							
Methyl-4,6-Dinitrophenol 2-	150		9.52	<9.52	<9.52	-							
Pentachlorophenol	0.56		9.52	<9.52	<9.52	-							
Phenol	2560		4.76	<4.76	<4.76	-							
P	Phthalate Esters (but see 8270C-SIM analysis next page)												
bis(2-Ethylhexyl)phthalate	2.2		9.52	<9.52	<9.52	-							
Butylbenzylphthalate	3		4.76	<4.76	<4.76	-							
Diethylphthalate	3		4.76	<4.76	<4.76	-							
Dimethylphthalate	3		4.76	<4.76	<4.76	-							
Di-n-butylphthalate	3		4.76	<4.76	<4.76	-							
Di-n-octylphthalate	3		4.76	<4.76	<4.76	-							
Polycyclic Aron	natic Hydrocarb	ons (PAHs) - (l	but see 8270C-	SIM analysis	next page)								
Acenaphthene	0.2		4.76	<4.76	<4.76	-							
Acenaphthylene	0.2		4.76	<4.76	<4.76	-							
Anthracene	0.2		4.76	<4.76	<4.76	-							
Benzo(a)anthracene	0.018		4.76	<4.76	<4.76	-							
Benzo(a)pyrene	0.018		4.76	<4.76	<4.76	-							
Benzo(b)fluoranthene	0.018		4.76	<4.76	<4.76	-							
Benzo(g,h,i)perylene	0.2		4.76	<4.76	<4.76	-							
Benzo(k)fluoranthene	0.018		4.76	<4.76	<4.76	-							
Chrysene	0.018		4.76	<4.76	<4.76	-							
Dibenzo(a,h)anthracene	0.018		4.76	<4.76	<4.76	-							
Fluoranthene	0.2		4.76	<4.76	<4.76	-							
Fluorene	0.2		4.76	<4.76	<4.76	-							
Indeno(1,2,3-cd)pyrene	0.018		4.76	<4.76	<4.76	-							
2-Methylnaphthalene	0.2		4.76	<4.76	<4.76	-							
Naphthalene	0.2		4.76	<4.76	<4.76	-							
Phenanthrene	0.2		4.76	<4.76	<4.76	-							
Pyrene	0.2		4.76	<4.76	<4.76	-							

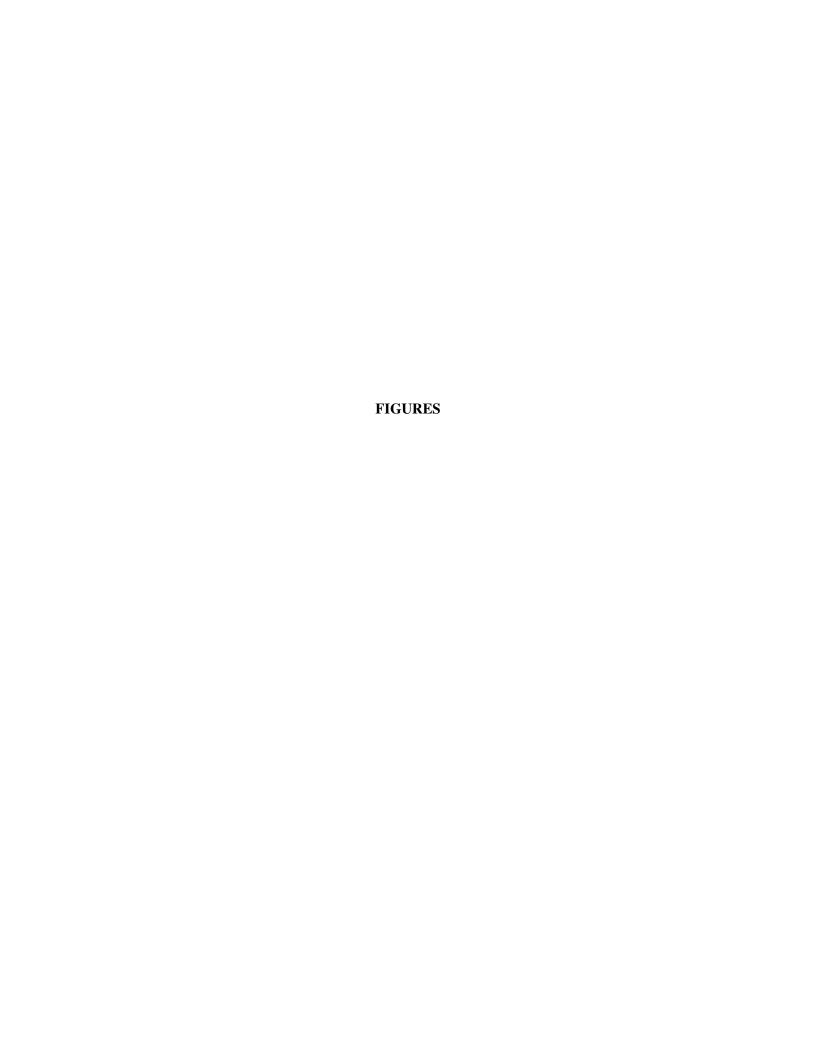
Table 2
Stormwater Sampling Results - February 23, 2010
GS Roofing Products Site
Portland, Oregon

	SLV (DEQ 2008) (µg/L)	Laboratory MDL (µg/L)	Laboratory MRL (µg/L)	Outfall A (µg/L)	Outfall B (µg/L)	Trip Blank (µg/L)							
PI	nthalates/PAI				(µg/L)								
11	Phthalate Esters												
bis(2-Ethylhexyl)phthalate	2.2		0.952	< 0.952	1.01	-							
Butylbenzylphthalate	3		0.952	< 0.952	< 0.952	-							
Diethylphthalate	3		0.952	< 0.952	< 0.952	-							
Dimethylphthalate	3		0.952	0.956	< 0.956	-							
Di-n-butylphthalate	3		0.952	< 0.952	< 0.952	-							
Di-n-octylphthalate	3		0.952	< 0.952	< 0.952	-							
PAHs													
Acenaphthene	0.2		0.0952	< 0.0952	< 0.0952	-							
Acenaphthylene	0.2		0.143/0.286	< 0.143	< 0.286	-							
Anthracene	0.2		0.0952	< 0.0952	< 0.0952	-							
Benzo(a)anthracene	0.018		0.0952	< 0.0952	< 0.0952	-							
Benzo(a)pyrene	0.018		0.0952	< 0.0952	< 0.0952	-							
Benzo(b)fluoranthene	0.018		0.0952	< 0.0952	< 0.0952	-							
Benzo(g,h,i)perylene	0.2		0.0952	< 0.0952	< 0.0952	-							
Benzo(k)fluoranthene	0.018		0.0952	< 0.0952	< 0.0952	-							
Chrysene	0.018		0.0952	< 0.0952	0.141	-							
Dibenzo(a,h)anthracene	0.018		0.190	< 0.190	< 0.190	-							
Fluoranthene	0.2		0.0952	0.096	0.635	-							
Fluorene	0.2		0.0952	< 0.0952	< 0.0952	-							
Indeno(1,2,3-cd)pyrene	0.018		0.0952	< 0.0952	< 0.0952	-							
Naphthalene	0.2		0.0952	< 0.0952	< 0.0952	-							
Phenanthrene	0.2		0.0952	0.096	0.241	-							
Pyrene	0.2		0.0952	< 0.0952	0.515	-							

Detected analytes in bold.

SLV = screening level value (see Table 3-1 Portland Harbor Joint Source Control Strategy (JSCS) dated December 2005; "--" = value not available; μg/L = micrograms per liter; MDL = laboratory method detection limit; MRL = laboratory method reporting limit; ND = not detected above the MDL.

The VOC analyte MRLs for the trip blank sample were one-half the VOC MRLs for the outfall samples. Any analytes listed in the laboratory report (see Appendix A) that are not tabulated above were not detected above their respective MRL.



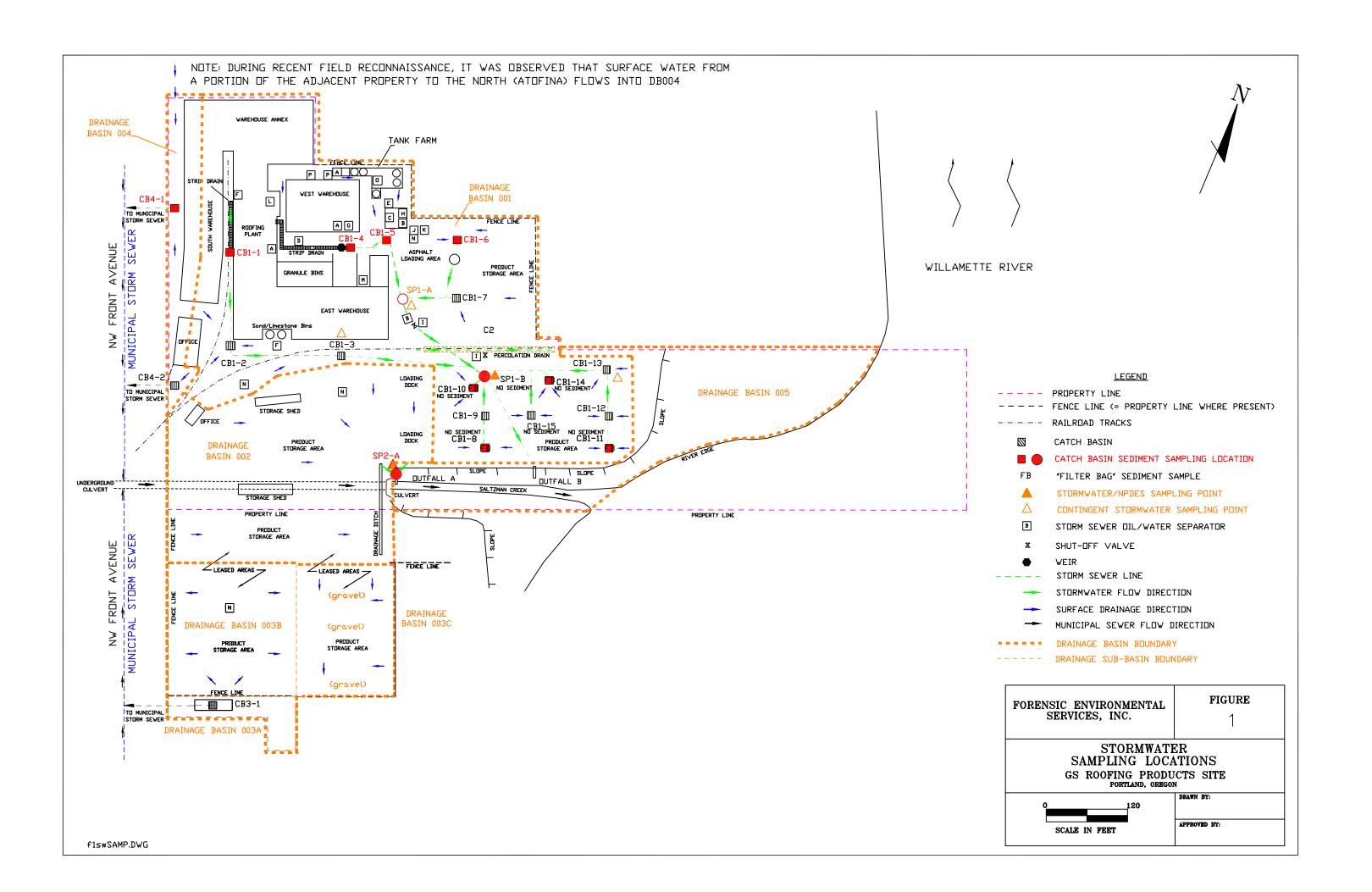
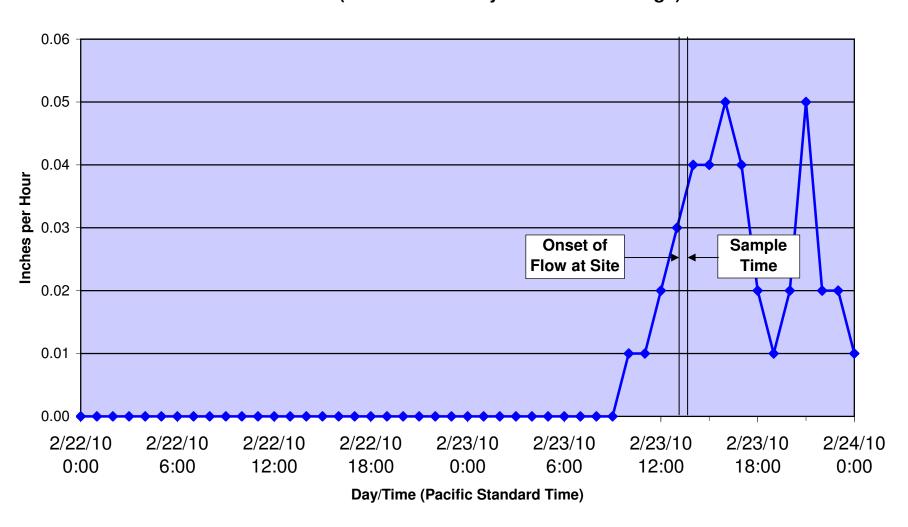


Figure 2
February 22-23, 2010 Hydrograph
Sta. 129 (Astor Elementary School Rain Gauge)



APPENDIX A

LABORATORY DATA REPORT



PORTLAND, OR 9405 S.W. NIMBUS AVENUE BEAVERTON, OR 97008-7132

ph: (503) 906.9200 fax: (503) 906.9210

ORELAP#: OR100021

March 10, 2010

Tony Ordway CertainTeed Roofing Products Group 6350 NW Front Ave Portland, OR 97210

RE: Stormwater Assessment

Enclosed are the results of analyses for samples received by the laboratory on 02/24/10 09:00. The following list is a summary of the Work Orders contained in this report, generated on 03/10/10 17:14.

If you have any questions concerning this report, please feel free to contact me.

Work Order	Project	ProjectNumber
PTB0681	Stormwater Assessment	[none]

TestAmerica Portland

Brian Cone, Industrial Services Manager

Brean L Come



PORTLAND, OR

9405 S.W. NIMBUS AVENUE BEAVERTON, OR 97008-7132 ph: (503) 906.9200 fax: (503) 906.9210

CertainTeed Roofing Products Group Project Name: Stormwater Assessment

6350 NW Front Ave Project Number: [none] Report Created: Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Outfall A	PTB0681-01	Water	02/23/10 13:20	02/24/10 09:00
Outfall B	PTB0681-02	Water	02/23/10 13:50	02/24/10 09:00
TB	PTB0681-03	Water	02/23/10 00:00	02/24/10 09:00

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The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report shall not be reproduced except in full, without the written approval of the laboratory.

Brian Cone, Industrial Services Manager



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PORTLAND, OR

9405 S.W. NIMBUS AVENUE BEAVERTON, OR 97008-7132 ph: (503) 906.9200 fax: (503) 906.9210

CertainTeed Roofing Products Group Project Name: Stormwater Assessment

6350 NW Front Ave Project Number: [none] Report Created: Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

Gasoline Hydrocarbons per NW TPH-Gx Method

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTB0681-01 (Outfall A)			Water Sampled: 02/23/10 13:20							
Gasoline Range Hydrocarbons	NW TPH-Gx	ND		160	ug/l	2x	10B0755	02/25/10 14:16	02/26/10 07:23	RL1
Surrogate(s): 4-BFB (FID)				99.3%		50 - 150 %				"
PTB0681-02 (Outfall B)			Wa	iter		Samp	led: 02/23/	10 13:50		
Gasoline Range Hydrocarbons	NW TPH-Gx	ND		160	ug/l	2x	10B0755	02/25/10 14:16	02/26/10 07:59	RL1
Surrogate(s): 4-BFB (FID)				101%		50 - 150 %				"

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Brian Cone, Industrial Services Manager



9405 S.W. NIMBUS AVENUE

BEAVERTON, OR 97008-7132 ph: (503) 906.9200 fax: (503) 906.9210



CertainTeed Roofing Products Group **Stormwater Assessment** Project Name:

6350 NW Front Ave Project Number: Report Created: [none] Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTB0681-01 (Outfall A)			Wa	ater		Samp	led: 02/23/			
Diesel Range Organics	NWTPH-Dx	0.764		0.236	mg/l	1x	10C0057	03/03/10 06:50	03/03/10 10:03	Q12
Residual Range/Heavy Oil Organics	n	0.960		0.472	"	"	"	"	"	Q10
Surrogate(s): 1-Chlorooctadecane				89.5%		50 - 150 %				"
PTB0681-02 (Outfall B)			Wa	iter		Samp	oled: 02/23/10 13:50			
Diesel Range Organics	NWTPH-Dx	1.04		0.238	mg/l	1x	10C0057	03/03/10 06:50	03/03/10 10:21	Q12
Residual Range/Heavy Oil Organics	n	1.51		0.476	"	"	"	"	"	Q10
Surrogate(s): 1-Chloroocta	decane			79.8%		50 - 150 %				"

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9405 S.W. NIMBUS AVENUE

BEAVERTON, OR 97008-7132 ph: (503) 906.9200 fax: (503) 906.9210



CertainTeed Roofing Products Group **Stormwater Assessment** Project Name:

6350 NW Front Ave Project Number: Report Created: [none] Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

Total Metals per EPA 200 Series Methods

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Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTB0681-01	(Outfall A)			W	ater		Sam	pled: 02/23/	10 13:20		
Aluminum		EPA 200.7	1.53		0.100	mg/l	1x	10B0736	02/25/10 10:32	02/25/10 20:51	
Antimony		EPA 200.8	0.00116		0.00100	"	"	10B0760	02/25/10 15:00	02/26/10 07:30	
Arsenic		"	0.00118		0.00100	"	"	"	"	"	
Cadmium		"	ND		0.00100	"	"	"	"	"	
Chromium		"	0.00985		0.00200	"	"	"	"	"	
Copper		"	0.0762		0.00200	"	"	"	"	"	
Lead		"	0.0118		0.00100	"	"	"	"	"	
Manganese		"	0.127		0.00200	"	"	"	"	"	
Nickel		"	0.00464		0.00200	"	"	"	"	"	
Selenium		"	ND		0.00100	"	"	"	"	"	
Silver		"	ND		0.00100	"	"	"	"	"	
Zinc		"	0.167		0.0100	"	"	"	"	"	
DTD0/01 03	(O. (6.11.D)			W	ater		Cam	pled: 02/23/	10 12.50		
PTB0681-02	(Outfall B)			• • • • • • • • • • • • • • • • • • • •				•			
Aluminum		EPA 200.7	2.56		0.100	mg/l	1x	10B0736	02/25/10 10:32	02/25/10 20:57	
Antimony		EPA 200.8	0.00124		0.00100	"	"	10B0760	02/25/10 15:00	02/26/10 07:38	
Arsenic		"	0.00126		0.00100	"	"	"	"	"	
Cadmium		"	ND		0.00100	"	"	"	"	"	
Chromium		"	0.0153		0.00200	"	"	"	"	"	
Copper		"	0.0440		0.00200	"	"	"	"	"	
Lead		"	0.00740		0.00100	"	"	"	"	"	
Manganese		"	0.205		0.00200	"	"	"	"	"	
Nickel		"	0.00524		0.00200	"	"	"	"	"	
Selenium		"	ND		0.00100	"	"	"	"	"	
Silver		"	ND		0.00100	"	"	"	"	"	
Zinc		"	0.157		0.0100	"	"	"	"	"	

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Brian Cone, Industrial Services Manager



PORTLAND, OR

9405 S.W. NIMBUS AVENUE BEAVERTON, OR 97008-7132 ph: (503) 906.9200 fax: (503) 906.9210

CertainTeed Roofing Products Group Project Name: Stormwater Assessment

6350 NW Front Ave Project Number: [none] Report Created:
Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

Total Mercury per EPA Method 7470A

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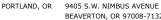
Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTB0681-01	(Outfall A)			W	ater		Sam	pled: 02/23/	10 13:20		
Mercury		EPA 7470A	ND		0.000200	mg/l	1x	10C0096	03/03/10 12:16	03/03/10 17:07	
PTB0681-02	(Outfall B)			W	ater		Sam	pled: 02/23/	10 13:50		
Mercury	(Cavan b)	EPA 7470A	ND		0.000200	mg/l	1x	10C0096	03/03/10 12:16	03/03/10 17:10	

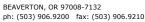
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Brian Cone, Industrial Services Manager







CertainTeed Roofing Products Group Project Name: Stormwater Assessment

6350 NW Front Ave Project Number: [none] Report Created:
Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

Volatile Organic Compounds per EPA Method 8260B

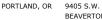
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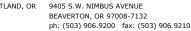
Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTB0681-01 (Outfall A)			Wa	iter		Sam	pled: 02/23/	10 13:20		RI
Acetone	EPA 8260B	ND		50.0	ug/l	2x	10B0733	02/25/10 12:00	02/25/10 17:53	
Benzene	"	ND		2.00	"	"	"	"	"	
Bromobenzene	"	ND		2.00	"	"	"	"	"	
Bromochloromethane	"	ND		2.00	"	"	"	"	"	
Bromodichloromethane	"	ND		2.00	"	"	"	"	"	
Bromoform	"	ND		2.00	"	"	"	"	"	
Bromomethane	"	ND		10.0	"	"	"	"	"	
2-Butanone (MEK)	"	ND		20.0	"	"	"	"	"	
n-Butylbenzene	"	ND		10.0	"	"	"	"	"	
sec-Butylbenzene	"	ND		2.00	"	"	"	"	"	
tert-Butylbenzene	"	ND		2.00	"	"	"	"	"	
Carbon disulfide	"	ND		20.0	"	"	"	"	"	
Carbon tetrachloride	"	ND		2.00	"	"	"	"	"	
Chlorobenzene	"	ND		2.00	"	"	"	"	"	
Chloroethane	"	ND		2.00	"	"	"	"	"	
Chloroform	"	ND		2.00	"	"	"	"	"	
Chloromethane	"	ND		10.0	"	"	"	"	"	
2-Chlorotoluene	"	ND		2.00	"	"	"	"	"	
4-Chlorotoluene	"	ND		2.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND		10.0	"	"	"	"	"	
Dibromochloromethane	"	ND		2.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND		2.00	"	"	"	"	"	
Dibromomethane	"	ND		2.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND		2.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND		2.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND		2.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND		10.0	"	"	"	"	"	
1,1-Dichloroethane	"	ND		2.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND		2.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND		2.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND		2.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND		2.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND		2.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND		2.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND		2.00	"		"	"	"	
1,1-Dichloropropene	"	ND		2.00	"		"	"	"	

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Brian Cone, Industrial Services Manager







CertainTeed Roofing Products Group **Stormwater Assessment** Project Name:

6350 NW Front Ave Project Number: Report Created: [none] Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

Volatile Organic Compounds per EPA Method 8260B

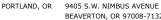
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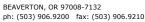
Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTB0681-01	(Outfall A)			W	ater		Samp	led: 02/23/	10 13:20		RL1
cis-1,3-Dichloropro	pene	EPA 8260B	ND		2.00	ug/l	2x	10B0733	02/25/10 12:00	02/25/10 17:53	
trans-1,3-Dichlorop	ropene	"	ND		2.00	"	"	"	"	"	
Ethylbenzene		"	ND		2.00	"	"	"	"	"	
Hexachlorobutadier	ne	"	ND		8.00	"	"	"	"	"	
2-Hexanone		"	ND		20.0	"	"	"	"	"	
Isopropylbenzene		"	ND		4.00	"	"	"	"	"	
p-Isopropyltoluene		"	ND		4.00	"	"	"	"	"	
4-Methyl-2-pentano	one	"	ND		10.0	"	"	"	"	"	
Methyl tert-butyl et	her	"	ND		2.00	"	"	"	"	"	
Methylene chloride		"	ND		10.0	"	"	"	"	"	
Naphthalene		"	ND		4.00	"	"	"	"	"	
n-Propylbenzene		"	ND		2.00	"	"	"	"	"	
Styrene		"	ND		2.00	"	"	"	"	"	
1,1,1,2-Tetrachloro	ethane	"	ND		2.00	"	"	"	"	"	
1,1,2,2-Tetrachloro	ethane	"	ND		2.00	"	"	"	"	"	
Tetrachloroethene		"	ND		2.00	"	"	"	"	"	
Toluene		"	ND		2.00	"	"	"	"	"	
1,2,3-Trichlorobenz	zene	"	ND		2.00	"	"	"	"	"	
1,2,4-Trichlorobenz	zene	"	ND		2.00	"	"	"	"	"	
1,1,1-Trichloroetha	ne	"	ND		2.00	"	"	"	"	"	
1,1,2-Trichloroetha	ne	"	ND		2.00	"	"	"	"	"	
Trichloroethene		"	ND		2.00	"	"	"	"	"	
Trichlorofluoromet	hane	"	ND		2.00	"	"	"	"	"	
1,2,3-Trichloroprop	oane	"	ND		2.00	"	"	"	"	"	
1,2,4-Trimethylben	zene	"	ND		2.00	"	"	"	"	"	
1,3,5-Trimethylben	zene	"	ND		2.00	"	"	"	"	"	
Vinyl chloride		"	ND		2.00	"	"	"	"	"	
o-Xylene		"	ND		2.00	"	"	"	"	"	
m,p-Xylene		"	ND		4.00	"	"	"	"	"	
Surrogate(s):	Dibromofluorome	ethane			93.4%		80 - 120 %				n n
	1,2-DCA-d4				99.8%		80 - 120 %				"
	Toluene-d8				93.2%		80 - 120 %				"
	4-BFB				94.0%		80 - 120 %				"

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Brian Cone, Industrial Services Manager







CertainTeed Roofing Products Group

Project Name:

Stormwater Assessment

6350 NW Front Ave Portland, OR 97210 Project Number: [none]
Project Manager: Tony Ordway

Report Created: 03/10/10 17:14

Volatile Organic Compounds per EPA Method 8260B

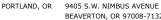
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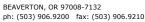
Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTB0681-02 (Outfall B)			W	ater		Sam	pled: 02/23/	10 13:50		RL1
Acetone	EPA 8260B	ND		50.0	ug/l	2x	10B0733	02/25/10 12:00	02/25/10 18:20	
Benzene	"	ND		2.00	"	"	"	"	"	
Bromobenzene	"	ND		2.00	"	"	"	"	"	
Bromochloromethane	"	ND		2.00	"	"	"	"	"	
Bromodichloromethane	"	ND		2.00	"	"	"	"	"	
Bromoform	"	ND		2.00	"	"	"	"	"	
Bromomethane	"	ND		10.0	"	"	"	"	"	
2-Butanone (MEK)	"	ND		20.0	"	"	"	"	"	
n-Butylbenzene	"	ND		10.0	"	"	"	"	"	
sec-Butylbenzene	"	ND		2.00	"	"	"	"	"	
tert-Butylbenzene	"	ND		2.00	"	"	"	"	"	
Carbon disulfide	"	ND		20.0	"	"	"	"	"	
Carbon tetrachloride	"	ND		2.00	"	"	"	"	"	
Chlorobenzene	"	ND		2.00	"	"	"	"	"	
Chloroethane	"	ND		2.00	"	"	"	"	"	
Chloroform	"	ND		2.00	"	"	"	"	"	
Chloromethane	"	ND		10.0	"	"	"	"	"	
2-Chlorotoluene	"	ND		2.00	"	"	"	"	"	
4-Chlorotoluene	"	ND		2.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND		10.0	"	"	"	"	"	
Dibromochloromethane	"	ND		2.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND		2.00	"	"	"	"	"	
Dibromomethane	"	ND		2.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND		2.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND		2.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND		2.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND		10.0	"	"	"	"	"	
1,1-Dichloroethane	"	ND		2.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND		2.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND		2.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND		2.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND		2.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND		2.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND		2.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND		2.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND		2.00	"	"	"	"	"	

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Bream L Come

Brian Cone, Industrial Services Manager







CertainTeed Roofing Products Group Project Name: Stormwater Assessment

6350 NW Front Ave Project Number: [none] Report Created:
Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

Volatile Organic Compounds per EPA Method 8260B

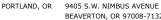
TestAmerica Portland

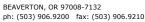
Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTB0681-02 ((Outfall B)			W	ater		Samp	led: 02/23/	10 13:50		RL1
cis-1,3-Dichloroprop	pene	EPA 8260B	ND		2.00	ug/l	2x	10B0733	02/25/10 12:00	02/25/10 18:20	
trans-1,3-Dichloropi	ropene	"	ND		2.00	"	"	"	"	"	
Ethylbenzene		"	ND		2.00	"	"	"	"	"	
Hexachlorobutadien	e	"	ND		8.00	"	"	"	"	"	
2-Hexanone		"	ND		20.0	"	"	"	"	"	
Isopropylbenzene		"	ND		4.00	"	"	"	"	"	
p-Isopropyltoluene		"	ND		4.00	"	"	"	"	"	
4-Methyl-2-pentano	ne	"	ND		10.0	"	"	"	"	"	
Methyl tert-butyl eth	her	"	ND		2.00	"	"	"	"	"	
Methylene chloride		"	ND		10.0	"	"	"	"	"	
Naphthalene		"	ND		4.00	"	"	"	"	"	
n-Propylbenzene		"	ND		2.00	"	"	"	"	"	
Styrene		"	ND		2.00	"	"	"	"	"	
1,1,1,2-Tetrachloroe	thane	"	ND		2.00	"	"	"	"	"	
1,1,2,2-Tetrachloroe	thane	"	ND		2.00	"	"	"	"	"	
Tetrachloroethene		"	ND		2.00	"	"	"	"	"	
Toluene		"	ND		2.00	"	"	"	"	"	
1,2,3-Trichlorobenze	ene	"	ND		2.00	"	"	"	"	"	
1,2,4-Trichlorobenze	ene	"	ND		2.00	"	"	"	"	"	
1,1,1-Trichloroethan	ıe	"	ND		2.00	"	"	"	"	"	
1,1,2-Trichloroethan	1e	"	ND		2.00	"	"	"	"	"	
Trichloroethene		"	ND		2.00	"	"	"	"	"	
Trichlorofluorometh	nane	"	ND		2.00	"	"	"	"	"	
1,2,3-Trichloropropa	ane	"	ND		2.00	"	"	"	"	"	
1,2,4-Trimethylbenz	rene	"	ND		2.00	"	"	"	"	"	
1,3,5-Trimethylbenz	rene	"	ND		2.00	"	"	"	"	"	
Vinyl chloride		"	ND		2.00	"	"	"	"	"	
o-Xylene		"	ND		2.00	"	"	"	"	"	
m,p-Xylene		"	ND		4.00	"	"	"	"	"	
Surrogate(s):	Dibromofluoron	nethane			92.0%		80 - 120 %				"
	1,2-DCA-d4				105%		80 - 120 %				"
	Toluene-d8				94.6%		80 - 120 %				"
	4-BFB				97.0%		80 - 120 %				"

TestAmerica Portland

Brean L Come

Brian Cone, Industrial Services Manager







CertainTeed Roofing Products Group Project Name: Stormwater Assessment

6350 NW Front Ave Project Number: [none] Report Created:
Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

Volatile Organic Compounds per EPA Method 8260B

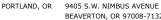
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Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTB0681-03 (TB)			Wa	nter		Samj	oled: 02/23/	10 00:00		
Acetone	EPA 8260B	ND		25.0	ug/l	1x	10B0733	02/25/10 12:00	02/25/10 16:59	
Benzene	"	ND		1.00	"	"	"	"	"	
Bromobenzene	"	ND		1.00	"	"	"	"	"	
Bromochloromethane	"	ND		1.00	"	"	"	"	"	
Bromodichloromethane	"	ND		1.00	"	"	"	"	"	
Bromoform	"	ND		1.00	"	"	"	"	"	
Bromomethane	"	ND		5.00	"	"	"	"	"	
2-Butanone (MEK)	"	ND		10.0	"	"	"	"	"	
n-Butylbenzene	"	ND		5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND		1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND		1.00	"	"	"	"	"	
Carbon disulfide	"	ND		10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND		1.00	"	"	"	"	"	
Chlorobenzene	"	ND		1.00	"	"	"	"	"	
Chloroethane	"	ND		1.00	"	"	"	"	"	
Chloroform	"	3.55		1.00	"	"	"	"	"	
Chloromethane	"	ND		5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND		1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND		1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND		5.00	"	"	"	"	"	
Dibromochloromethane	"	ND		1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND		1.00	"	"	"	"	"	
Dibromomethane	"	ND		1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND		1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND		1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND		1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND		5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND		1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND		1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND		1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND		1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND		1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND		1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND		1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND		1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND		1.00	"	"	"	"	"	

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Bream L Come

Brian Cone, Industrial Services Manager





BEAVERTON, OR 97008-7132 ph: (503) 906.9200 fax: (503) 906.9210



CertainTeed Roofing Products Group **Stormwater Assessment** Project Name:

6350 NW Front Ave Project Number: Report Created: [none] Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

Volatile Organic Compounds per EPA Method 8260B

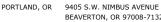
TestAmerica Portland

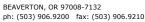
Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTB0681-03	(TB)			W	ater		Samp	led: 02/23/	10 00:00		
cis-1,3-Dichloropro	pene	EPA 8260B	ND		1.00	ug/l	1x	10B0733	02/25/10 12:00	02/25/10 16:59	
trans-1,3-Dichlorop	ropene	"	ND		1.00	"	"	"	"	"	
Ethylbenzene		"	ND		1.00	"	"	"	"	"	
Hexachlorobutadien	ie	"	ND		4.00	"	"	"	"	"	
2-Hexanone		"	ND		10.0	"	"	"	"	"	
Isopropylbenzene		"	ND		2.00	"	"	"	"	"	
p-Isopropyltoluene		"	ND		2.00	"	"	"	"	"	
4-Methyl-2-pentano	ne	"	ND		5.00	"	"	"	"	"	
Methyl tert-butyl etl	her	"	ND		1.00	"	"	"	"	"	
Methylene chloride		"	ND		5.00	"	"	"	"	"	
Naphthalene		"	ND		2.00	"	"	"	"	"	
n-Propylbenzene		"	ND		1.00	"	"	"	"	"	
Styrene		"	ND		1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroe	ethane	"	ND		1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroe	ethane	"	ND		1.00	"	"	"	"	"	
Tetrachloroethene		"	ND		1.00	"	"	"	"	"	
Toluene		"	ND		1.00	"	"	"	"	"	
1,2,3-Trichlorobenz	ene	"	ND		1.00	"	"	"	"	"	
1,2,4-Trichlorobenz	ene	"	ND		1.00	"	"	"	"	"	
1,1,1-Trichloroethan	ne	"	ND		1.00	"	"	"	"	"	
1,1,2-Trichloroethan	ne	"	ND		1.00	"	"	"	"	"	
Trichloroethene		"	ND		1.00	"	"	"	"	"	
Trichlorofluorometh	nane	"	ND		1.00	"	"	"	"	"	
1,2,3-Trichloroprop	ane	"	ND		1.00	"	"	"	"	"	
1,2,4-Trimethylbenz	zene	"	ND		1.00	"	"	"	"	"	
1,3,5-Trimethylbenz	zene	"	ND		1.00	"	"	"	"	"	
Vinyl chloride		"	ND		1.00	"	"	"	"	"	
o-Xylene		"	ND		1.00	"	"	"	"	"	
m,p-Xylene		"	ND		2.00	"	"	"	"	"	
Surrogate(s):	Dibromofluorome	thane			93.8%		80 - 120 %				"
	1,2-DCA-d4				104%		80 - 120 %				"
	Toluene-d8				93.6%		80 - 120 %				"
	4-BFB				97.8%		80 - 120 %				"

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Becan L Come

Brian Cone, Industrial Services Manager







CertainTeed Roofing Products Group Project Name: Stormwater Assessment

6350 NW Front Ave Project Number: [none] Report Created:
Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

Semivolatile Organic Compounds per EPA Method 8270C

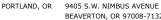
TestAmerica Portland

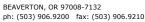
Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTB0681-01 (Outfall A)			Wa	iter		Sam	pled: 02/23/	10 13:20		
Acenaphthene	EPA 8270C	ND		4.76	ug/l	1x	10B0741	02/25/10 13:25	03/03/10 00:31	
Acenaphthylene	"	ND		4.76	"	"	"	"	"	
Anthracene	"	ND		4.76	"	"	"	"	"	
Benzo (a) anthracene	"	ND		4.76	"	"	"	"	"	
Benzo (a) pyrene	"	ND		4.76	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND		4.76	"	"	"	"	"	
Benzo (ghi) perylene	"	ND		4.76	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND		4.76	"	"	"	"	"	
Benzoic Acid	"	ND		47.6	"	"	"	"	"	
Benzyl alcohol	"	ND		9.52	"	"	"	"	"	
4-Bromophenyl phenyl ether	"	ND		4.76	"	"	"	"	"	
Butyl benzyl phthalate	"	ND		4.76	"	"	"	"	"	
4-Chloro-3-methylphenol	"	ND		4.76	"	"	"	"	"	
4-Chloroaniline	"	ND		19.0	"	"	"	"	"	
Bis(2-chloroethoxy)methane	"	ND		9.52	"	"	"	"	"	
Bis(2-chloroethyl)ether	"	ND		4.76	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	"	ND		9.52	"	"	"	"	"	
2-Chloronaphthalene	"	ND		4.76	"	"	"	"	"	
2-Chlorophenol	"	ND		4.76	"	"	"	"	"	
4-Chlorophenyl phenyl ether	"	ND		4.76	"	"	"	"	"	
Chrysene	"	ND		4.76	"	"	"	"	"	
Di-n-butyl phthalate	"	ND		4.76	"	"	"	"	"	
Di-n-octyl phthalate	"	ND		4.76	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND		4.76	"	"	"	"	"	
Dibenzofuran	"	ND		4.76	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND		4.76	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND		4.76	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND		4.76	"	"	"	"	"	
3,3'-Dichlorobenzidine	"	ND		4.76	"	"	"	"	"	
2,4-Dichlorophenol	"	ND		4.76	"	"	"	"	"	
Diethyl phthalate	"	ND		4.76	"	"	"	"	"	
2,4-Dimethylphenol	"	ND		9.52	"	"	"	"	"	
Dimethyl phthalate	"	ND		4.76	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	"	ND		9.52	"	"	"	"	"	
2,4-Dinitrophenol	"	ND		23.8	"	"	"	"	"	
2,4-Dinitrotoluene	"	ND		4.76	"	"	"	"	"	

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Bream L Come

Brian Cone, Industrial Services Manager







CertainTeed Roofing Products Group

Project Name:

Stormwater Assessment

6350 NW Front Ave Portland, OR 97210 Project Number: [none]
Project Manager: Tony Ordway

Report Created: 03/10/10 17:14

Semivolatile Organic Compounds per EPA Method 8270C

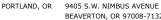
TestAmerica Portland

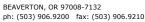
Analyte	Mo	ethod Re	esult	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTB0681-01 (C	Outfall A)			Wa	iter		Samp	led: 02/23/	10 13:20		
2,6-Dinitrotoluene	EPA	A 8270C	ND		4.76	ug/l	1x	10B0741	02/25/10 13:25	03/03/10 00:31	
Bis(2-ethylhexyl)phth	halate '		ND		9.52	"	"	"	"	"	
Fluoranthene	,		ND		4.76	"	"	"	"	"	
Fluorene	,		ND		4.76	"	"	"	"	"	
Hexachlorobenzene	,		ND		4.76	"	"	"	"	"	
Hexachlorobutadiene	,		ND		9.52	"	"	"	"	"	
Hexachlorocyclopent	adiene		ND		9.52	"	"	"	"	"	
Hexachloroethane			ND		9.52	"	"	"	"	"	
Indeno (1,2,3-cd) pyr	rene '		ND		4.76	"	"	"	"	"	
Isophorone		,	ND		4.76	"	"	"	"	"	
2-Methylnaphthalene	,		ND		4.76	"	"	"	"	"	
2-Methylphenol		,	ND		9.52	"	"	"	"	"	
3-,4-Methylphenol		•	5.69		4.76	"	"	"	"	"	
Naphthalene		,	ND		4.76	"	"	"	"	"	
2-Nitroaniline		,	ND		4.76	"	"	"	"	"	
3-Nitroaniline		,	ND		9.52	"	"	"	"	"	
4-Nitroaniline			ND		9.52	"	"	"	"	"	
Nitrobenzene			ND		4.76	"	"	"	"	"	
2-Nitrophenol			ND		4.76	"	"	"	"	"	
4-Nitrophenol			ND		23.8	"	"	"	"	"	
N-Nitrosodi-n-propyl	lamine '		ND		9.52	"	"	"	"	"	
N-Nitrosodiphenylam	nine '		ND		4.76	"	"	"	"	"	
Pentachlorophenol			ND		9.52	"	"	"	"	"	
Phenanthrene			ND		4.76	"	"	"	"	"	
Phenol			ND		4.76	"	"	"	"	"	
Pyrene			ND		4.76	"	"	"	"	"	
1,2,4-Trichlorobenze	ne '		ND		4.76	"	"	"	"	"	
2,4,5-Trichloropheno	.1		ND		4.76	"	"	"	"	"	
2,4,6-Trichloropheno	ıl '		ND		4.76	"	"	"	"	"	
Surrogate(s):	2-Fluorobiphenyl				96.7%		20 - 120 %				"
	2-Fluorophenol				84.4%		10 - 120 %				"
	Nitrobenzene-d5				100%		20 - 130 %				"
	Phenol-d6				89.9%		10 - 125 %				"
	p-Terphenyl-d14				98.7%		35 - 130 %				"
	2,4,6-Tribromophenol				87.1%		20 - 130 %				"

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Becan L Come

Brian Cone, Industrial Services Manager







CertainTeed Roofing Products Group

Project Name: Stormwater Assessment

6350 NW Front Ave Project Number: [none] Report Created: Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

Semivolatile Organic Compounds per EPA Method 8270C

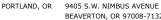
TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTB0681-02 (Outfall B)			Wa	ater		Sam	pled: 02/23/	10 13:50		
Acenaphthene	EPA 8270C	ND		4.76	ug/l	1x	10B0741	02/25/10 13:25	03/03/10 01:15	
Acenaphthylene	"	ND		4.76	"	"	"	"	"	
Anthracene	"	ND		4.76	"	"	"	"	"	
Benzo (a) anthracene	"	ND		4.76	"	"	"	"	"	
Benzo (a) pyrene	"	ND		4.76	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND		4.76	"	"	"	"	"	
Benzo (ghi) perylene	"	ND		4.76	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND		4.76	"	"	"	"	"	
Benzoic Acid	"	ND		47.6	"	"	"	"	"	
Benzyl alcohol	"	ND		9.52	"	"	"	"	"	
4-Bromophenyl phenyl ether	"	ND		4.76	"	"	"	"	"	
Butyl benzyl phthalate	"	ND		4.76	"	"	"	"	"	
4-Chloro-3-methylphenol	"	ND		4.76	"	"	"	"	"	
4-Chloroaniline	"	ND		19.0	"	"	"	"	"	
Bis(2-chloroethoxy)methane	"	ND		9.52	"	"	"	"	"	
Bis(2-chloroethyl)ether	"	ND		4.76	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	"	ND		9.52	"	"	"	"	"	
2-Chloronaphthalene	"	ND		4.76	"	"	"	"	"	
2-Chlorophenol	"	ND		4.76	"	"	"	"	"	
4-Chlorophenyl phenyl ether	"	ND		4.76	"	"	"	"	"	
Chrysene	"	ND		4.76	"	"	"	"	"	
Di-n-butyl phthalate	"	ND		4.76	"	"	"	"	"	
Di-n-octyl phthalate	"	ND		4.76	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND		4.76	"	"	"	"	"	
Dibenzofuran	"	ND		4.76	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND		4.76	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND		4.76	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND		4.76	"	"	"	"	"	
3,3'-Dichlorobenzidine	"	ND		4.76	"	"	"	"	"	
2,4-Dichlorophenol	"	ND		4.76	"	"	"	"	"	
Diethyl phthalate	"	ND		4.76	"	"	"	"	"	
2,4-Dimethylphenol	"	ND		9.52	"	"	"	"	"	
Dimethyl phthalate	"	ND		4.76	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	"	ND		9.52	"	"	"	"	"	
2,4-Dinitrophenol	"	ND		23.8	"	"	"	"	"	
2,4-Dinitrotoluene	"	ND		4.76	"	"	"	"	"	

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Brian Cone, Industrial Services Manager



BEAVERTON, OR 97008-7132 ph: (503) 906.9200 fax: (503) 906.9210



CertainTeed Roofing Products Group

Project Name: Stormwater Assessment

6350 NW Front Ave Project Number: [none] Report Created:
Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

Semivolatile Organic Compounds per EPA Method 8270C

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTB0681-02 (O	utfall B)		W	ater		Samp	led: 02/23/	10 13:50		
2,6-Dinitrotoluene	EPA 8270C	ND		4.76	ug/l	1x	10B0741	02/25/10 13:25	03/03/10 01:15	
Bis(2-ethylhexyl)phtha	late "	ND		9.52	"	"	"	"	"	
Fluoranthene	"	ND		4.76	"	"	"	"	"	
Fluorene	"	ND		4.76	"	"	"	"	"	
Hexachlorobenzene	"	ND		4.76	"	"	"	"	"	
Hexachlorobutadiene	"	ND		9.52	"	"	"	"	"	
Hexachlorocyclopentae	liene "	ND		9.52	"	"	"	"	"	
Hexachloroethane	"	ND		9.52	"	"	"	"	"	
Indeno (1,2,3-cd) pyrer	ne "	ND		4.76		"	"	"	"	
Isophorone	"	ND		4.76	"	"	"	"	"	
2-Methylnaphthalene	"	ND		4.76	"	"	"	"	"	
2-Methylphenol	"	ND		9.52	"	"	"	"	"	
3-,4-Methylphenol	"	ND		4.76	"	"	"	"	"	
Naphthalene	"	ND		4.76	"	"	"	"	"	
2-Nitroaniline	"	ND		4.76	"	"	"	"	"	
3-Nitroaniline	"	ND		9.52	"	"	"	"	"	
4-Nitroaniline	"	ND		9.52	"	"	"	"	"	
Nitrobenzene	"	ND		4.76		"	"	"	"	
2-Nitrophenol	"	ND		4.76		"	"	"	"	
4-Nitrophenol	"	ND		23.8		"	"	"	"	
N-Nitrosodi-n-propylar	mine "	ND		9.52	"	"	"	"	"	
N-Nitrosodiphenylamii	ne "	ND		4.76	"	"	"	"	"	
Pentachlorophenol	"	ND		9.52	"	"	"	"	"	
Phenanthrene	"	ND		4.76	"	"	"	"	"	
Phenol	"	ND		4.76	"	"	"	"	"	
Pyrene	"	ND		4.76	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND		4.76		"	"	"	"	
2,4,5-Trichlorophenol	"	ND		4.76	"	"	"	"	"	
2,4,6-Trichlorophenol	n	ND		4.76	"	"	"	"	"	
Surrogate(s): 2	-Fluorobiphenyl			96.0%		20 - 120 %				"
	-Fluorophenol			81.3%		10 - 120 %				"
	litrobenzene-d5			101%		20 - 130 %				"
	Phenol-d6			86.3%		10 - 125 %				"
	-Terphenyl-d14			96.6%		35 - 130 %				"
2	,4,6-Tribromophenol			83.2%		20 - 130 %				"

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CertainTeed Roofing Products Group Project Name: Stormwater Assessment

6350 NW Front Ave Project Number: [none] Report Created:
Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

Polynuclear Aromatic Compounds per EPA 8270M-SIM

TestAmerica Portland

EPA 8270m	ND N	W:	0.0952 0.143 0.0952 0.0952 0.0952 0.0952 0.0952 0.0952 0.0952 0.190 0.0952	ug/l	Samp	10B0742	10 13:20 02/25/10 13:25 " " " " "	03/03/10 19:57	RL1
EPA 8270m	ND N		0.143 0.0952 0.0952 0.0952 0.0952 0.0952 0.0952 0.0952 0.190	"		" " " " " " " " " " " " " " " " " " " "	"		RL1
	ND N		0.0952 0.0952 0.0952 0.0952 0.0952 0.0952 0.0952 0.190	" " " " " " " " " " " " " " " " " " " "	" " " " " " " " " " " " " " " " " " " "	" " " " " " " " " " " " " " " " " " " "	"	" " " " " " " " " " " " " " " " " " " "	RL1
	ND		0.0952 0.0952 0.0952 0.0952 0.0952 0.0952 0.190	" " " " " " " " " " " " " " " " " " " "	" " "	" " " " " " " " " " " " " " " " " " " "		" " " " " " " " " " " " " " " " " " " "	
	ND		0.0952 0.0952 0.0952 0.0952 0.0952 0.190		" "	" "	11 11 11 11	" " " " " " " " " " " " " " " " " " " "	
	ND ND ND ND ND ND ND 0.0955		0.0952 0.0952 0.0952 0.0952 0.190		"	" " " " " " " " " " " " " " " " " " " "	" " " " " " " " " " " " " " " " " " " "	" " " " " " " " " " " " " " " " " " " "	
	ND ND ND ND 0.0955 ND		0.0952 0.0952 0.0952 0.190		"	" " "	" " " " " " " " " " " " " " " " " " " "	" " " " " " " " " " " " " " " " " " " "	
	ND ND ND 0.0955 ND		0.0952 0.0952 0.190			"	" "	" "	
	ND ND 0.0955 ND		0.0952 0.190			"	"	"	
" " " " "	ND 0.0955 ND		0.190		"	"	"	"	
n n n	0.0955 ND				"				
" " "	ND		0.0952			"	"	"	
" "				"	"	"	"	"	
"	ND		0.0952	"	"	"	"	"	
"			0.0952	"	"	"	"	"	
	ND		0.0952	"	"	"	"	"	
"	0.0957		0.0952	"	"	"	"	"	
"	ND		0.0952	"	"	"	"	"	
			81.9%		25 - 125 %				"
			74.3%		23 - 150 %				"
2			33.3%		10 - 125 %				"
		W	ater		Samp	oled: 02/23/1	10 13:50		
EPA 8270m	ND		0.0952	ug/l	1x	10B0742	02/25/10 13:25	03/03/10 20:25	
"	ND		0.286		"	"	"	"	RL1
"	ND		0.0952		"	"	"	"	
"	ND		0.0952		"	"	"	"	
"	ND		0.0952		"	"	"	"	
"	ND		0.0952	"	"	"	"	"	
"	ND		0.0952	"	"	"	"	"	
"	ND		0.0952	"	"	"	"	"	
"	0.141		0.0952	"	"	"	"	"	
"	ND		0.190	"	"	"	"	"	
"	0.635		0.0952		"	"	"	"	
"	ND		0.0952		"	"	"	"	
"	ND		0.0952	"	"	"	"	"	
"	ND		0.0952	"	"	"	"	"	
"			0.0952			"	"	"	
	2 EPA 8270m	" ND 2 EPA 8270m ND "	" ND 2 EPA 8270m ND " ND	" ND 0.0952 ***81.9% **74.3% 2**2**33.3% **Water** EPA 8270m ND 0.0952 " ND 0.190 " 0.635 0.0952 " ND 0.0952	" ND *** *** *** *** *** *** *** *** **	" ND 0.0952 " " 81.9% 25 - 125 % 74.3% 23 - 150 % 2 **Water Sample PA 8270m** " ND 0.0952 ug/l lx " ND 0.286 " " " ND 0.0952 " " ND 0.0952 " "	" ND 0.0952 " " " " 81.9%	ND	## ND 0.0952 " " " " " " " " " " " " " " " " " " "

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Brian Cone, Industrial Services Manager



PORTLAND, OR

9405 S.W. NIMBUS AVENUE BEAVERTON, OR 97008-7132 ph: (503) 906.9200 fax: (503) 906.9210

CertainTeed Roofing Products Group Project Name: Stormwater Assessment

6350 NW Front Ave Project Number: [none] Report Created: Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

Polynuclear Aromatic Compounds per EPA 8270M-SIM

TestAmerica Portland

Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes	
PTB0681-02	(Outfall B)			Wa	iter		Samp	oled: 02/23/	10 13:50			
Pyrene		EPA 8270m	0.515		0.0952	ug/l	1x	10B0742	02/25/10 13:25	03/03/10 20:25		
Surrogate(s):	Fluorene-d10				81.7%		25 - 125 %				"	
	Pyrene-d10				76.4%		23 - 150 %				"	
	Benzo (a) pyrene-di	12			38.5%		10 - 125 %				"	

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Stormwater Assessment

9405 S.W. NIMBUS AVENUE

BEAVERTON, OR 97008-7132 ph: (503) 906.9200 fax: (503) 906.9210



CertainTeed Roofing Products Group Project Name:

6350 NW Front Ave Project Number: [none] Report Created:
Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

Phthalates per EPA 8270-SIM

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTB0681-01 (Outfall A)			W	ater		Sampl	led: 02/23/	10 13:20		
Dimethyl phthalate	EPA 8270m	0.956		0.952	ug/l	1x	10B0742	02/25/10 13:25	03/03/10 20:28	
Diethyl phthalate	"	ND		0.952	"	"	"	"	"	
Di-n-butyl phthalate	"	ND		0.952	"	"	"	"	"	
Butyl benzyl phthalate	"	ND		0.952	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	"	ND		0.952	"	"	"	"	"	
Di-n-octyl phthalate	"	ND		0.952	"	"	"	"	"	
Surrogate(s): 2-Fluorobiph	enyl			60.2%		10 - 150 %				"
p-Terphenyl-o	114			75.5%		10 - 150 %				"
PTB0681-02 (Outfall B)			w	ater		Sampl	led: 02/23/	10 13:50		
Dimethyl phthalate	EPA 8270m	ND		0.952	ug/l	1x	10B0742	02/25/10 13:25	03/03/10 21:02	
Diethyl phthalate	"	ND		0.952	"	"	"	"	"	
Di-n-butyl phthalate	"	ND		0.952	"	"	"	"	"	
Butyl benzyl phthalate	"	ND		0.952	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	"	1.01		0.952		"	"	"	"	
Di-n-octyl phthalate	"	ND		0.952	"	"	"	"	"	
Surrogate(s): 2-Fluorobiph	enyl			76.6%		10 - 150 %				"
p-Terphenyl-o	114			85.4%		10 - 150 %				"

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Brian Cone, Industrial Services Manager



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TestAmerica THE LEADER IN ENVIRONMENTAL TESTING

CertainTeed Roofing Products Group **Stormwater Assessment** Project Name:

6350 NW Front Ave Project Number: Report Created: [none] Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

Conventional Chemistry Parameters per Standard Methods

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTB0681-01 (Outfall A)			Wa	ter		Sam	pled: 02/23/	10 13:20		
Total Suspended Solids	SM 2540D	60.0		10.0	mg/l	1x	10B0784	02/26/10 10:39	02/26/10 18:37	
Total Organic Carbon	SM 5310C	19.8		1.00	"	•	10B0785	02/26/10 11:18	02/27/10 20:56	P4
PTB0681-02 (Outfall B)			Wa	ter		Sam	pled: 02/23/	10 13:50		
Total Suspended Solids	SM 2540D	60.0		10.0	mg/l	1x	10B0784	02/26/10 10:39	02/26/10 18:37	
Total Organic Carbon	SM 5310C	14.5		1.00	"	"	10B0785	02/26/10 11:18	02/27/10 20:56	P4

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Brian Cone, Industrial Services Manager



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9405 S.W. NIMBUS AVENUE BEAVERTON, OR 97008-7132 ph: (503) 906.9200 fax: (503) 906.9210

CertainTeed Roofing Products Group Project Name: Stormwater Assessment

6350 NW Front Ave Project Number: [none] Report Created:
Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

Field Testing of Conventional Chemistry Parameters per APHA/EPA Methods

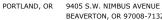
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Analyte		Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PTB0681-01	(Outfall A)			Wate	er		Sam	pled: 02/23/	10 13:20		
pН		EPA 150.1	7.27			pH Units	1x	10B0745	02/23/10 13:25	02/23/10 13:30	
DTD0/01 03	(O (C II D)			Wate			Sam	pled: 02/23/	10 12.50		
PTB0681-02	(Outfall B)			wate	31		Sam	pieu: 02/23/	10 13:30		
pН		EPA 150.1	6.99			pH Units	1x	10B0745	02/23/10 13:55	02/23/10 14:00	

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Becan L Core

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report shall not be reproduced except in full, without the written approval of the laboratory.



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CertainTeed Roofing Products Group Project Name: Stormwater Assessment

6350 NW Front Ave Project Number: [none] Report Created:
Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

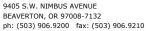
	Gasoline Hy	lrocarbor	s per NW	TPH-Gx N TestAmeric		Labor	atory Qu	ıality (Contr	ol Resul	ts			
QC Batch: 10B0755	Water P	reparation	Method:	EPA 5030B										
Analyte	Method	Result	MDL*	* MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits	s) Analyzed	Notes
Blank (10B0755-BLK1)								Extr	acted:	02/25/10 14	:16			
Gasoline Range Hydrocarbons	NW TPH-Gx	ND		80.0	ug/l	1x							02/25/10 19:29	
Surrogate(s): 4-BFB (FID)		Recovery:	100%	Lin	nits: 50-150%								02/25/10 19:29	
LCS (10B0755-BS1)								Extr	acted:	02/25/10 14	:16			
Gasoline Range Hydrocarbons	NW TPH-Gx	516		80.0	ug/l	1x		500	103%	(70-130)			02/25/10 18:18	
Surrogate(s): 4-BFB (FID)		Recovery:	100%	Lin	nits: 50-150%								02/25/10 18:18	
LCS Dup (10B0755-BSD1)								Extr	acted:	02/25/10 14	:16			
Gasoline Range Hydrocarbons	NW TPH-Gx	572		80.0	ug/l	1x		500	114%	(70-130)	10.2%	(35)	02/25/10 18:54	
Surrogate(s): 4-BFB (FID)		Recovery:	103%	Lin	nits: 50-150%								02/25/10 18:54	
Duplicate (10B0755-DUP1)				QC Source:	PTB0669-01			Extr	acted:	02/25/10 14	:16			
Gasoline Range Hydrocarbons	NW TPH-Gx	ND		80.0	ug/l	1x	ND				NR	(35)	02/25/10 21:15	
Surrogate(s): 4-BFB (FID)		Recovery:	97.4%	Lin	nits: 50-150%								02/25/10 21:15	
Duplicate (10B0755-DUP2)				QC Source:	PTB0669-02			Extr	acted:	02/25/10 14	:16			
Gasoline Range Hydrocarbons	NW TPH-Gx	ND		80.0	ug/l	1x	ND				NR	(35)	02/25/10 22:26	
Surrogate(s): 4-BFB (FID)		Recovery:	98.2%	Lin	nits: 50-150%								02/25/10 22:26	

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6350 NW Front Ave Project Number: [none] Report Created:
Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

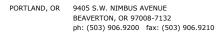
Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 10C0057	Water 1	Preparation	Method: E	PA 3510 I	uels									
Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (10C0057-BLK1)								Extr	acted:	03/03/10 06	:50			
Diesel Range Organics	NWTPH-Dx	ND		0.250	mg/l	1x							03/03/10 09:06	
Residual Range/Heavy Oil Organics	"	ND		0.500	"	"							"	
Surrogate(s): 1-Chlorooctadecane		Recovery:	78.8%	Lin	nits: 50-150	9%							03/03/10 09:06	
LCS (10C0057-BS1)								Extr	acted:	03/03/10 07	:30			
Diesel Range Organics	NWTPH-Dx	1.98		0.250	mg/l	1x		2.50	79.1%	(50-150)			03/03/10 09:25	
Residual Range/Heavy Oil Organics	"	1.16		0.500	"	"		1.50	77.0%	"			"	
Surrogate(s): 1-Chlorooctadecane		Recovery:	75.7%	Lin	nits: 60-120	9%							03/03/10 09:25	
LCS Dup (10C0057-BSD1)								Extr	acted:	03/03/10 07	:30			
Diesel Range Organics	NWTPH-Dx	1.86		0.250	mg/l	1x		2.50	74.5%	(50-150)	5.92%	6 (20)	03/03/10 09:44	
Residual Range/Heavy Oil Organics	"	1.11		0.500	"	"		1.50	73.9%	"	4.18%	6 "	"	
Surrogate(s): 1-Chlorooctadecane		Recovery:	72.2%	Lin	nits: 60-120	1%							03/03/10 09:44	

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6350 NW Front Ave Project Number: [none] Report Created:
Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

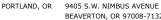
		etals per EPA		estAmeric			<i>y</i> • • • • • • • • • • • • • • • • • • •	.,						
QC Batch: 10B0736	Water P	reparation M	lethod: E	PA 200/30	05									
Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (10B0736-BLK1)								Extr	acted:	02/25/10 10	:32			
Aluminum	EPA 200.7	ND		0.100	mg/l	1x							02/25/10 20:28	
LCS (10B0736-BS1)								Extr	acted:	02/25/10 10	:32			
Aluminum	EPA 200.7	5.28		0.100	mg/l	1x		5.00	106%	(85-115)			02/25/10 20:34	
Duplicate (10B0736-DUP1)				QC Source:	PTB0702-	02		Extr	acted:	02/25/10 10):32			
Aluminum	EPA 200.7	ND		0.100	mg/l	1x	ND				NR	(20)	02/25/10 21:15	
Matrix Spike (10B0736-MS1)				QC Source:	PTB0702-	02		Extr	acted:	02/25/10 10	:32			
Aluminum	EPA 200.7	5.17		0.100	mg/l	1x	ND	5.00	103%	(75-125)			02/25/10 21:20	
Matrix Spike (10B0736-MS2)				QC Source:	PTB0707-	01		Extr	acted:	02/25/10 10	:32			
Aluminum	EPA 200.7	5.44		0.100	mg/l	1x	0.0657	5.00	107%	(75-125)			02/25/10 22:15	

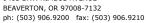
QC Batch: 10B0760	Water P	reparation M	ethod: E	PA 200/30	05									
Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)) Analyzed	Notes
Blank (10B0760-BLK1)								Extr	acted:	02/25/10 15	:00			
Antimony	EPA 200.8	ND		0.00100	mg/l	1x							02/26/10 05:57	
Arsenic	"	ND		0.00100	"	"							"	
Cadmium	"	ND		0.00100	"	"							"	
Chromium	"	ND		0.00200	"	"							"	
Copper	"	ND		0.00200	"	"							"	
Lead	"	ND		0.00100	"	"							"	
Manganese	"	ND		0.00200	"								"	
Nickel	"	ND		0.00200	"	"							"	
Selenium	"	ND		0.00100	"	"							"	
Silver	"	ND		0.00100	"	"							"	
Zinc	"	ND		0.0100	"	"							"	
LCS (10B0760-BS1)								Extr	acted:	02/25/10 15	:00			
Antimony	EPA 200.8	0.0506		0.00100	mg/l	1x		0.0500	101%	(85-115)			02/26/10 06:05	
Arsenic	"	0.0986		0.00100	"	"		0.100	98.6%	"			"	
Cadmium	"	0.101		0.00100	"	"		"	101%	"			"	
Chromium	"	0.0988		0.00200	"	"		"	98.8%	"			"	
Copper	"	0.0963		0.00200	"	"		"	96.3%	"			"	
Lead	"	0.101		0.00100	"	"		"	101%	"			"	
Manganese	"	0.103		0.00200	"	"		"	103%	"			"	

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Brian Cone, Industrial Services Manager







6350 NW Front Ave Project Number: [none] Report Created:
Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

$Total\ Metals\ per\ EPA\ 200\ Series\ Methods\ -\ Laboratory\ Quality\ Control\ Results$

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				CSG MIICHC	a i ortiane	•								
QC Batch: 10B0760	Water I	Preparation M	lethod: E	PA 200/30	005									
Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits) Analyzed	Notes
LCS (10B0760-BS1)								Extr	racted:	02/25/10 15	:00			
Nickel	EPA 200.8	0.0964		0.00200	mg/l	1x		0.100	96.4%	(85-115)			02/26/10 06:05	
Selenium	"	0.0987		0.00100	"	"		"	98.7%	"			"	
Silver	"	0.0507		0.00100	"	"		0.0500	101%	"			"	
Zinc	"	0.0941		0.0100	"	"		0.100	94.1%	"			"	
Duplicate (10B0760-DUP1)				QC Source:	PTB0680-	03		Extr	racted:	02/25/10 15	:00			
Antimony	EPA 200.8	ND		0.00100	mg/l	1x	ND				9.52%	(20)	02/26/10 06:59	
Arsenic	"	ND		0.00100	"	"	ND				0.00%	"	"	
Cadmium	"	ND		0.00100	"	"	ND				NR	"	"	
Chromium	"	0.00230		0.00200	"	"	0.00231				0.434%	"	"	
Copper	"	0.0133		0.00200	"	"	0.0133				0.0754%	ó "	"	
Lead	"	0.00493		0.00100	"	"	0.00515				4.37%	"	"	
Manganese	"	0.0834		0.00200	"	"	0.0846				1.45%	"	"	
Nickel	"	0.00208		0.00200	"	"	0.00203				2.43%	"	"	
Selenium	"	ND		0.00100	"	"	ND				NR	"	"	
Silver	"	ND		0.00100	"	"	ND				NR	"	"	
Zinc	"	0.0779		0.0100	"	"	0.0782				0.397%	"	"	
Matrix Spike (10B0760-MS1)				QC Source:	PTB0680-	03		Extr	racted:	02/25/10 15	:00			
Antimony	EPA 200.8	0.0508		0.00100	mg/l	1x	0.000550	0.0500	101%	(70-130)			02/26/10 07:07	
Arsenic	"	0.0987		0.00100	"	"	0.000440	0.100	98.2%	"			"	
Cadmium	"	0.103		0.00100	"	"	ND	"	103%	"			"	
Chromium	"	0.100		0.00200	"	"	0.00231	"	97.9%	(75-125)			"	
Copper	"	0.108		0.00200	"	"	0.0133	"	95.0%	"			"	
Lead	"	0.106		0.00100	"	"	0.00515	"	101%	"			"	
Manganese	"	0.188		0.00200	"	"	0.0846	"	103%	(70-130)			"	
Nickel	"	0.0966		0.00200	"	"	0.00203	"	94.6%	"			"	
Selenium	"	0.0984		0.00100	"	"	ND	"	98.4%	"			"	
Silver	"	0.0503		0.00100	"	"	ND	0.0500	101%	"			"	
Zinc	"	0.173		0.0100	"	"	0.0782	0.100	94.4%	"			"	

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Becan L Core

Brian Cone, Industrial Services Manager



9405 S.W. NIMBUS AVENUE

BEAVERTON, OR 97008-7132 ph: (503) 906.9200 fax: (503) 906.9210



CertainTeed Roofing Products Group **Stormwater Assessment** Project Name:

6350 NW Front Ave Project Number: Report Created: [none] Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

Total Metals per EPA 200 Series Methods - Laboratory Quality Control Results

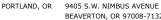
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QC Batch: 10B0760	Water P	reparation M	lethod: E	PA 200/30	05									
Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits) Analyzed	Notes
Matrix Spike (10B0760-MS2)				QC Source:	PTB0685-0	1		Extr	acted:	02/25/10 15	:00			
Antimony	EPA 200.8	0.0560		0.00100	mg/l	1x	0.000290	0.0500	111%	(70-130)			02/26/10 08:17	
Arsenic	"	0.102		0.00100	"	"	0.000670	0.100	102%	"			"	
Cadmium	"	0.109		0.00100	"	"	ND	"	109%	"			"	
Chromium	"	0.102		0.00200	"	"	ND	"	102%	(75-125)			"	
Copper	"	0.0982		0.00200	"		0.00290	"	95.3%	"			"	
Lead	"	0.106		0.00100	"		ND	"	106%	"			"	
Manganese	"	0.109		0.00200	"		0.00464	"	104%	(70-130)			"	
Nickel	"	0.0967		0.00200	"		0.000300	"	96.4%	"			"	
Selenium	"	0.101		0.00100	"	"	ND	"	101%	"			"	
Silver	"	0.0532		0.00100	"	"	ND	0.0500	106%	"			"	
Zinc	"	0.484		0.0100	"		0.390	0.100	94.1%	"			"	

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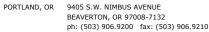
CertainTeed Roofing Products Group Project Name: Stormwater Assessment

6350 NW Front Ave Project Number: [none] Report Created:
Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

	Total N	Aercury per l		hod 7470			y Quality	y Control Re	sults				
QC Batch: 10C0096	Water 1	Preparation M	lethod: E	EPA 7470A									
Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike % Amt REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (10C0096-BLK1)								Extracted:	03/03/10 12	2:16			
Mercury	EPA 7470A	ND		0.000200	mg/l	1x						03/03/10 16:32	
LCS (10C0096-BS1)								Extracted:	03/03/10 12	2:16			
Mercury	EPA 7470A	0.00475		0.000200	mg/l	1x		0.00500 95.0%	(85-115)			03/03/10 16:35	
LCS Dup (10C0096-BSD1)								Extracted:	03/03/10 12	2:16			
Mercury	EPA 7470A	0.00483		0.000200	mg/l	1x		0.00500 96.5%	(85-115)	1.59%	6 (20)	03/03/10 16:38	
Duplicate (10C0096-DUP1)				QC Source:	PTB0808-	01		Extracted:	03/03/10 12	2:16			
Mercury	EPA 7470A	0.000944		0.000200	mg/l	1x	0.00127			29.8%	(20)	03/03/10 17:45	R2
Matrix Spike (10C0096-MS1)				QC Source:	PTB0808-	01		Extracted:	03/03/10 12	2:16			
Mercury	EPA 7470A	0.00508		0.000200	mg/l	1x	0.00127	0.00500 76.1%	(75-125)			03/03/10 16:43	
Matrix Spike Dup (10C0096-MS	D1)			QC Source:	PTB0808-	01		Extracted:	03/03/10 12	2:16			
Mercury	EPA 7470A	0.00502		0.000200	mg/l	1x	0.00127	0.00500 75.0%	(75-125)	1.14%	6 (20)	03/03/10 16:46	

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6350 NW Front Ave Project Number: [none] Report Created:
Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results

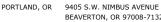
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QC Batch: 10B0733 Water Preparation Method: EPA 5030B Source Spike % RPD Analyte Method Result MDL* MRL Units Dil (Limits) Analyzed (Limits) Notes REC Result Amt Blank (10B0733-BLK1) Extracted: 02/25/10 09:00 EPA 8260B 02/25/10 12:31 ND 25.0 Acetone ug/l 1xBenzene ND 1.00 ND 1.00 Bromobenzene Bromochloromethane ND 1.00 Bromodichloromethane ND 1.00 Bromoform ND 1.00 Bromomethane ND 5.00 2-Butanone (MEK) ND 10.0 n-Butylbenzene ND 5.00 sec-Butylbenzene ND 1.00 tert-Butylbenzene ND 1.00 Carbon disulfide ND 10.0 Carbon tetrachloride ND 1.00 Chlorobenzene ND 1.00 Chloroethane ND 1.00 Chloroform ND 1.00 ND 5.00 2-Chlorotoluene ND 1.00 4-Chlorotoluene ND 1.00 1,2-Dibromo-3-chloropropane ND 5.00 Dibromochloromethane ND 1.00 1.00 1.2-Dibromoethane ND Dibromomethane ND 1.00 1,2-Dichlorobenzene ND 1.00 1.00 1,3-Dichlorobenzene ND 1,4-Dichlorobenzene ND 1.00 Dichlorodifluoromethane ND 5.00 1,1-Dichloroethane ND 1.00 1.00 1,2-Dichloroethane ND 1,1-Dichloroethene ND 1.00 ND 1.00 trans-1,2-Dichloroethene ND 1.00 1,2-Dichloropropane ND 1.00 1,3-Dichloropropane ND 1.00 2,2-Dichloropropane ND 1.00 ND 1.00 1.1-Dichloropropene 1.00 cis-1,3-Dichloropropene ND trans-1,3-Dichloropropene ND 1.00 Ethylbenzene ND 1.00

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Brian Cone, Industrial Services Manager



BEAVERTON, OR 97008-7132 ph: (503) 906.9200 fax: (503) 906.9210

Report Created:

03/10/10 17:14



CertainTeed Roofing Products Group

Project Name: Stormwater Assessment

6350 NW Front Ave Project Number: [none]
Portland, OR 97210 Project Manager: Tony Ordway

Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results

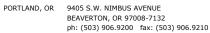
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QC Batch: 10B07	733 Wa	iter Preparation	Method:	EPA 5030E	3									
Analyte	Method	Result	MDI	L* MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (10B0733-BLK1)	1							Extr	acted:	02/25/10 09	00:00			
Hexachlorobutadiene	EPA 826	0B ND		4.00	ug/l	1x							02/25/10 12:31	
2-Hexanone	"	ND		10.0	"	"							"	
Isopropylbenzene	"	ND		2.00	"	"							"	
p-Isopropyltoluene	"	ND		2.00	"	"							"	
4-Methyl-2-pentanone	"	ND		5.00	"	"							"	
Methyl tert-butyl ether	"	ND		1.00	"	"							"	
Methylene chloride	"	ND		5.00	"	"							"	
Naphthalene	"	ND		2.00	"	"							"	
n-Propylbenzene	"	ND		1.00	"	"							"	
Styrene	"	ND		1.00	"	"							"	
1,1,1,2-Tetrachloroethane	"	ND		1.00	"	"							"	
1,1,2,2-Tetrachloroethane	"	ND		1.00	"	"							"	
Tetrachloroethene	"	ND		1.00	"	"							"	
Toluene	"	ND		1.00	"	"							"	
1,2,3-Trichlorobenzene	"	ND		1.00	"	"							"	
1,2,4-Trichlorobenzene	"	ND		1.00	"	"							"	
1,1,1-Trichloroethane	"	ND		1.00	"	"							"	
1,1,2-Trichloroethane	"	ND		1.00	"	"							"	
Trichloroethene	"	ND		1.00	"	"							"	
Trichlorofluoromethane	"	ND		1.00	"	"							"	
1,2,3-Trichloropropane	"	ND		1.00	,,	"							"	
1,2,4-Trimethylbenzene	"	ND		1.00	,,	"							"	
1,3,5-Trimethylbenzene	"	ND		1.00	,,	"							"	
Vinyl chloride	"	ND		1.00	,,	"							"	
o-Xylene	,,	ND		1.00	"	"							"	
m,p-Xylene	"	ND		2.00	"	"							"	
Surrogate(s): Dibromoflu	oromethane	Recovery:	93.2%	Li	mits: 80-120	1%							02/25/10 12:3	1
1,2-DCA-d-		,	103%		80-12								"	
Toluene-d8			92.8%		80-12	0%							"	
4-BFB			97.2%		80-12	0%							"	

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Brian Cone, Industrial Services Manager





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CertainTeed Roofing Products Group **Stormwater Assessment** Project Name:

6350 NW Front Ave Project Number: Report Created: [none] Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

Volatile Organic Compounds per EPA Method 8260B -	Laboratory Quality Control Results
Test America Portland	

QC Batc	h: 10B0733	Water 1	Preparation	Method:	EPA 5030B										
Analyte		Method	Result	MDL	.* MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS (10B073	3-BS1)								Extr	acted:	02/25/10 09	00:			
Benzene		EPA 8260B	19.0		1.00	ug/l	1x		20.0	94.8%	(80-120)			02/25/10 09:50	
Chlorobenzene		"	19.1		1.00	"	"		"	95.6%	(80-124)			"	
1,1-Dichloroethene		"	17.6		1.00	"	"		"	88.0%	(78-120)			"	
Toluene		"	19.4		1.00	"	"		"	97.1%	(80-124)			"	
Trichloroethene		"	19.4		1.00	"	"		"	97.2%	(80-132)			"	
Surrogate(s):	Dibromofluoromethane		Recovery:	94.4%	Lin	nits: 80-12	0%							02/25/10 09:50	
	1,2-DCA-d4			107%		80-12								"	
	Toluene-d8			95.4%		80-12								"	
	4-BFB			97.8%		80-12	20%							"	
LCS Dup (101	30733-BSD1)								Extr	acted:	02/25/10 09	0:00			
Benzene		EPA 8260B	19.5		1.00	ug/l	1x		20.0	97.6%	(80-120)	2.91%	(25)	02/25/10 10:17	
Chlorobenzene		"	19.3		1.00	"	"		"	96.6%	(80-124)	0.9889	% "	"	
1,1-Dichloroethene		"	18.4		1.00	"	"		"	92.2%	(78-120)	4.55%	ó "	"	
Toluene		"	19.8		1.00	"	"		"	98.9%	(80-124)	1.84%	ó "	"	
Trichloroethene		"	20.0		1.00	"	"		"	100%	(80-132)	2.79%	ó "	"	
Surrogate(s):	Dibromofluoromethane		Recovery:	96.4%	Lin	nits: 80-12	0%							02/25/10 10:17	
	1,2-DCA-d4			106%		80-12	20%							"	
	Toluene-d8			95.0%		80-12								"	
	4-BFB			96.6%		80-12	20%							"	
Matrix Spike	(10B0733-MS1)				QC Source:	PTB0681	1-02		Extr	acted:	02/25/10 09	00:			
Benzene		EPA 8260B	31.9		2.00	ug/l	2x	ND	40.0	79.8%	(80-124)			02/25/10 18:46	M
Chlorobenzene		"	31.7		2.00	"	"	ND	"	79.2%	(72.9-134)			"	
1,1-Dichloroethene		"	29.4		2.00	"	"	ND	"	73.4%	(79.3-127)			"	M
Toluene		"	33.1		2.00	"	"	0.560	"	81.4%	(79.7-131)			"	
Trichloroethene		"	32.5		2.00	"	"	ND	"	81.2%	(68.4-130)			"	
Surrogate(s):	Dibromofluoromethane		Recovery:	97.5%	Lin	nits: 80-12	0%							02/25/10 18:46	
	1,2-DCA-d4			105%		80-12	20%							"	
	Toluene-d8			95.1%		80-12								"	
	4-BFB			101%		80-12	20%							"	

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Brian Cone, Industrial Services Manager



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PORTLAND, OR

9405 S.W. NIMBUS AVENUE BEAVERTON, OR 97008-7132 ph: (503) 906.9200 fax: (503) 906.9210

CertainTeed Roofing Products Group Project Name: Stormwater Assessment

6350 NW Front Ave Project Number: [none] Report Created:
Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results

TestAmerica Portland

QC Batc	h: 10B0733	Water I	Preparation	Method: I	EPA 5030B										
Analyte		Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits) Analyzed	Notes
Matrix Spike D	oup (10B0733-MSE	01)			QC Source:	PTB0681-	-02		Exti	racted:	02/25/10 09	:00			
Benzene		EPA 8260B	32.8		2.00	ug/l	2x	ND	40.0	82.0%	(80-124)	2.78%	(25)	02/25/10 19:13	
Chlorobenzene		"	32.4		2.00	"	"	ND	"	80.9%	(72.9-134)	2.12%	"	"	
1,1-Dichloroethene		"	30.4		2.00	"	"	ND	"	76.0%	(79.3-127)	3.35%	"	"	M8
Toluene		"	33.9		2.00	"	"	0.560	"	83.3%	(79.7-131)	2.33%	"	"	
Trichloroethene		"	33.5		2.00	"	"	ND	"	83.8%	(68.4-130)	3.27%	"	"	
Surrogate(s):	Dibromofluoromethane		Recovery:	98.4%	Lin	its: 80-120	%							02/25/10 19:13	
	1,2-DCA-d4			105%		80-120	0%							"	
	Toluene-d8			94.7%		80-120	0%							"	
	4-BFB			100%		80-120	0%							"	

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QC Batch: 10B0741

CertainTeed Roofing Products Group Project Name: Stormwater Assessment

Water Preparation Method:

ND

ND

ND

ND

ND

ND

6350 NW Front Ave Project Number: [none] Report Created:
Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

Semivolatile Organic Compounds per EPA Method 8270C - Laboratory Quality Control Results

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3520B Liq-Liq

Source Spike % RPD Analyte Method Result MDL* MRL Units Dil (Limits) Analyzed (Limits) REC Amt Blank (10B0741-BLK1) Extracted: 02/25/10 13:25 EPA 8270C 03/02/10 21:34 Acenaphthene ND 5.00 ug/l 1xAcenaphthylene ND 5.00 Anthracene ND 5.00 ND 5.00 Benzo (a) anthracene Benzo (a) pyrene ND 5.00 Benzo (b) fluoranthene ND 5.00 ND 5.00 Benzo (ghi) perylene Benzo (k) fluoranthene ND 5.00 Benzoic Acid ND 50.0 Benzyl alcohol ND 10.0 4-Bromophenyl phenyl ether ND 5.00 Butyl benzyl phthalate ND 5.00 4-Chloro-3-methylphenol ND 5.00 4-Chloroaniline ND 20.0 ND 10.0 Bis(2-chloroethoxy)methane Bis(2-chloroethyl)ether ND 5.00 ND 10.0 Bis(2-chloroisopropyl)ether 2-Chloronaphthalene ND 5.00 2-Chlorophenol ND 5.00 4-Chlorophenyl phenyl ether ND 5.00 Chrysene ND 5.00 5.00 Di-n-butyl phthalate ND Di-n-octyl phthalate ND 5.00 Dibenzo (a,h) anthracene ND 5.00 5.00 Dibenzofuran ND 1,2-Dichlorobenzene ND 5.00 1,3-Dichlorobenzene ND 5.00 1,4-Dichlorobenzene ND 5.00 5.00 3,3'-Dichlorobenzidine ND 2,4-Dichlorophenol ND 5.00 Diethyl phthalate ND 5.00 2,4-Dimethylphenol ND 10.0 5.00 Dimethyl phthalate ND

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Bis(2-ethylhexyl)phthalate

4,6-Dinitro-2-methylphenol

2,4-Dinitrophenol

2.4-Dinitrotoluene

2.6-Dinitrotoluene

Fluoranthene

Becan L Come

Brian Cone, Industrial Services Manager

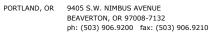
The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report shall not be reproduced except in full, without the written approval of the laboratory.

10.0 25.0

5.00

10.0

5.00





CertainTeed Roofing Products Group **Stormwater Assessment** Project Name:

6350 NW Front Ave Project Number: Report Created: [none] Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

Semivolatile Organic Compounds per EPA Method 8270C - Laboratory Quality Control Results

TestAmerica Portland

QC Batc	h: 10B0741	Water I	Preparation	Method: 3	3520B Liq-	Liq									
Analyte		Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Note
Blank (10B07	41-BLK1)								Extr	acted:	02/25/10 13	3:25			
Fluorene		EPA 8270C	ND		5.00	ug/l	1x						(03/02/10 21:34	
Hexachlorobenzene		"	ND		5.00	"	"							"	
Hexachlorobutadien	e	"	ND		10.0	"	"							"	
Hexachlorocycloper	itadiene	"	ND		10.0	"	"							"	
Hexachloroethane		"	ND		10.0	"	"							"	
Indeno (1,2,3-cd) py	rene	"	ND		5.00	"	"							"	
Isophorone		"	ND		5.00	"	"							"	
2-Methylnaphthalen	e	"	ND		5.00	"	"							"	
2-Methylphenol		"	ND		10.0	"	"							"	
3-,4-Methylphenol		"	ND		5.00	"	"							"	
Naphthalene		"	ND		5.00	"	"							"	
2-Nitroaniline		"	ND		5.00	"	"							"	
3-Nitroaniline		"	ND		10.0	"								"	
4-Nitroaniline		"	ND		10.0	"	"							"	
Nitrobenzene		"	ND		5.00	"	"							"	
2-Nitrophenol		"	ND		5.00	"								"	
4-Nitrophenol		"	ND		25.0	"								"	
N-Nitrosodi-n-propy	lamine	"	ND		10.0	"								"	
N-Nitrosodiphenyla		"	ND		5.00	"								"	
Pentachlorophenol		"	ND		10.0	"								"	
Phenanthrene		"	ND		5.00	"								"	
Phenol		"	ND		5.00	"								"	
Pyrene		"	ND		5.00	"								"	
1,2,4-Trichlorobenz	ene	"	ND		5.00	"								"	
2,4,5-Trichlorophen		,,	ND		5.00	"								"	
2,4,6-Trichlorophen		"	ND		5.00	"								"	
Surrogate(s):	2-Fluorobiphenyl		Recovery:	85.1%	Lin	nits: 20-120	%							03/02/10 21:3-	4
0 1091	2-Fluorophenol			86.9%		10-120								"	
	Nitrobenzene-d5			103%		20-130	1%							"	
	Phenol-d6			98.0%		10-125	%							"	
	p-Terphenyl-d14			114%		35-130	1%							"	
	2,4,6-Tribromophenol			85.6%		20-130	1%							"	

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Brian Cone, Industrial Services Manager





6350 NW Front Ave Project Number: [none] Report Created:
Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

Semivolatile Organic Compounds per EPA Method 8270C - Laboratory Quality Control Results

TestAmerica Portland

								C	C. 1	07		0.4			
Analyte		Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	REC	(Limits)	% RPD	(Limits)	Analyzed	Note
LCS (10B074	1-BS1)								Ext	racted:	02/25/10 13	3:25			
Acenaphthene		EPA 8270C	50.7		5.00	ug/l	1x		50.0	101%	(55-120)			03/02/10 18:38	
4-Chloro-3-methylpl	henol	"	47.6		5.00	"	"		"	95.2%	(35-135)			"	
2-Chlorophenol		"	50.1		5.00	"	"		"	100%	(30-130)			"	
1,4-Dichlorobenzene	e	"	44.8		5.00	"	"		"	89.6%	(10-125)			"	
2,4-Dinitrotoluene		"	56.8		5.00	"	"		"	114%	(50-130)			"	
4-Nitrophenol		"	48.5		25.0	"	"		"	97.0%	(10-150)			"	
N-Nitrosodi-n-propy	lamine	"	51.9		10.0	"	"		"	104%	(40-130)			"	
Pentachlorophenol		"	43.7		10.0	"	"		"	87.5%	(20-150)			"	
Phenol		"	45.4		5.00	"	"		"	90.8%	(10-145)			"	
Pyrene		"	58.3		5.00	"	"		"	117%	(55-125)			"	
1,2,4-Trichlorobenze	ene	"	46.5		5.00	"	"		"	93.1%	(30-120)			"	
Surrogate(s):	2-Fluorobiphenyl		Recovery:	81.2%	Lin	nits: 20-1209	6							03/02/10 18:38	
~ « g («)·	2-Fluorophenol			87.4%		10-120								"	
	Nitrobenzene-d5			100%		20-130	%							"	
	Phenol-d6			94.1%		10-125	%							"	
	p-Terphenyl-d14			104%		35-130	%							"	
	2,4,6-Tribromophenol			87.5%		20-130	%							"	
Matrix Spike	(10B0741-MS1)				QC Source:	PTB0681-0	12		Ext	acted:	02/25/10 13	3:25			
Acenaphthene		EPA 8270C	51.1		14.3	ug/l	3x	ND	47.6	107%	(20-150)			03/02/10 20:06	
4-Chloro-3-methylpl	henol	"	48.8		14.3	"	"	ND	"	102%	(10-150)			"	
2-Chlorophenol		"	45.4		14.3	"	"	ND	"	95.4%	"			"	
1,4-Dichlorobenzene	e	"	46.7		14.3	"	"	ND	"	98.0%				"	
2,4-Dinitrotoluene		"	50.1		14.3	"	"	ND	"	105%	,,			"	
4-Nitrophenol		"	44.0		71.4	"		ND	"	92.3%	,,			,,	
N-Nitrosodi-n-propy	lamine	"	55.6		28.6	"		ND	"	117%	,,			,,	
Pentachlorophenol		"	44.7		28.6	"		ND	"	93.9%	,,			,,	
Phenol		,,	45.9		14.3	"		ND	"	96.3%				"	
Pyrene		"	60.8		14.3	,,	,,	ND	"	128%	(20-135)			"	
1,2,4-Trichlorobenze	ene	,,	45.9		14.3	,,	,,	ND	"	96.3%	, ,			"	
						20 1200	,	110		70.570	(10 150)			02/02/10 20 04	
Surrogate(s):	2-Fluorobiphenyl 2-Fluorophenol		Recovery:	98.6% 81.6%	Lin	nits: 20-1209 10-120								03/02/10 20:06	
	2-r tuoropnenoi Nitrobenzene-d5			101%		20-130								"	
	Phenol-d6			91.4%		10-125								"	
	p-Terphenyl-d14			112%		35-130								"	
	rr					250									

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Becan L Come

Brian Cone, Industrial Services Manager



9405 S.W. NIMBUS AVENUE

BEAVERTON, OR 97008-7132 ph: (503) 906.9200 fax: (503) 906.9210



CertainTeed Roofing Products Group

Stormwater Assessment Project Name:

6350 NW Front Ave Portland, OR 97210 Project Number: Report Created: [none] Project Manager: Tony Ordway 03/10/10 17:14

Semivolatile Organic Compounds per EPA Method 8270C - Laboratory Quality Control Results

TestAmerica Portland

QC Batc	h: 10B0741	Water I	Preparation	Method:	3520B Liq-	Liq									
Analyte		Method	Result	MDI	L* MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike D	Oup (10B0741-MS	SD1)			QC Source:	PTB0681	-02		Extr	acted:	02/25/10 13	:25			
Acenaphthene		EPA 8270C	54.1		14.3	ug/l	3x	ND	47.6	114%	(20-150)	5.65%	(50)	03/02/10 20:50	
4-Chloro-3-methylpl	nenol	"	50.5		14.3	"	"	ND	"	106%	(10-150)	3.45%	"	"	
2-Chlorophenol		"	50.7		14.3	"	"	ND	"	106%	"	10.9%	"	"	
1,4-Dichlorobenzene	:	"	50.3		14.3	"	"	ND	"	106%	"	7.37%	"	"	
2,4-Dinitrotoluene		"	55.3		14.3	"	"	ND	"	116%	"	9.76%	"	"	
4-Nitrophenol		"	41.3		71.4	"	"	ND	"	86.8%	"	6.16%	"	"	
N-Nitrosodi-n-propy	lamine	"	57.9		28.6	"	"	ND	"	122%	"	4.03%	"	"	
Pentachlorophenol		"	44.5		28.6	"	"	ND	"	93.4%	"	0.513%	, "	"	
Phenol		"	47.7		14.3	"	"	ND	"	100%	"	3.97%	"	"	
Pyrene		"	62.4		14.3	"	"	ND	"	131%	(20-135)	2.60%	"	"	
1,2,4-Trichlorobenze	ene	"	47.6		14.3	"	"	ND	"	100%	(10-150)	3.79%	"	"	
Surrogate(s):	2-Fluorobiphenyl		Recovery:	98.8%	Lin	nits: 20-120	0%							03/02/10 20:50	0
	2-Fluorophenol			85.3%		10-12	0%							"	
	Nitrobenzene-d5			105%		20-13	0%							"	
	Phenol-d6			90.3%		10-12.	5%							"	
	p-Terphenyl-d14			107%		35-13	0%							"	
	2,4,6-Tribromophenol			84.9%		20-13	0%							"	

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6350 NW Front Ave Project Number: [none] Report Created:
Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

$Polynuclear\ Aromatic\ Compounds\ per\ EPA\ 8270M-SIM\ -\ Laboratory\ Quality\ Control\ Results$

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QC Batc	h: 10B0742	Water 1	Preparation	Method:	3520B Liq-	Liq									
Analyte		Method	Result	MD	L* MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Note
Blank (10B07	42-BLK1)								Exti	acted:	02/25/10 13	3:25			
Acenaphthene		EPA 8270m	ND		0.100	ug/l	1x						(03/03/10 18:33	
Acenaphthylene		"	ND		0.100	**	"							"	
Anthracene		"	ND		0.100	"	"							"	
Benzo (a) anthracene	e	"	ND		0.100	**	"							"	
Benzo (a) pyrene		"	ND		0.100	"	"							"	
Benzo (b) fluoranthe	ene	"	ND		0.100	"	"							"	
Benzo (ghi) perylene	•	"	ND		0.100	"	"							"	
Benzo (k) fluoranthe	ene	"	ND		0.100	"	"							"	
Chrysene		"	ND		0.100	"	"							"	
Dibenzo (a,h) anthra	cene	"	ND		0.200	"	"							"	
Fluoranthene		"	ND		0.100	"	"							"	
Fluorene		"	ND		0.100	"	"							"	
Indeno (1,2,3-cd) py	rene	"	ND		0.100	"	"							"	
Naphthalene		"	ND		0.100	"	"							"	
Phenanthrene		"	ND		0.100	"	"							"	
Pyrene		"	ND		0.100	"	"							"	
Surrogate(s):	Fluorene-d10		Recovery:	92.2%	Li	mits: 25-125	5%							03/03/10 18:33	
	Pyrene-d10			103%		23-150	0%							"	
	Benzo (a) pyrene-d12			82.6%		10-12:	5%							"	
LCS (10B0742	2-BS1)								Ext	racted:	02/25/10 13	3:25			
Acenaphthene	,	EPA 8270m	2.34		0.100	ug/l	1x		2.50	93.6%	(26-135)		(03/03/10 18:05	
Benzo (a) pyrene		"	2.19		0.100	"	"		"	87.7%	(38-137)			"	
Pyrene		"	2.24		0.100	"	"		"	89.6%	(33-133)			"	
Surrogate(s):	Fluorene-d10		Recovery:	93.9%	Li	mits: 25-125	5%							03/03/10 18:05	
0 ()	Pyrene-d10		•	89.8%		23-150	0%							"	
	Benzo (a) pyrene-d12			86.8%		10-12:	5%							"	
Matrix Snike	(10B0742-MS1)				QC Source	: PTB0681-	-02		Exti	acted:	02/25/10 13	3:25			
Acenaphthene		EPA 8270m	1.88		0.381	ug/l	4x	ND	2.38	79.0%	(26-135)		(03/03/10 19:01	
Benzo (a) pyrene		"	1.22		0.381	"	"	ND	"	51.3%	(38-137)			"	
Pyrene		"	2.27		0.381	"	"	0.515	"	73.6%				"	
Surrogate(s):	Fluorene-d10		Recovery:	75.3%	Li	mits: 25-125	5%							03/03/10 19:01	
	Pyrene-d10			70.8%	23.	23-150								"	
	Benzo (a) pyrene-d12			32.3%		10-12:	5%							"	

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Becan L Come

Brian Cone, Industrial Services Manager



THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR

9405 S.W. NIMBUS AVENUE BEAVERTON, OR 97008-7132 ph: (503) 906.9200 fax: (503) 906.9210

CertainTeed Roofing Products Group Project Name: Stormwater Assessment

6350 NW Front Ave Project Number: [none] Report Created:
Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Laboratory Quality Control Results

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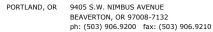
QC Batch: 10B0742 Water Preparation Method: 3520B Liq-Liq

Analyte		Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike D	Oup (10B0742-MS)	D1)			QC Source:	PTB0681-02	2		Exti	acted:	02/25/10 13	:25			
Acenaphthene		EPA 8270m	2.07		0.381	ug/l	4x	ND	2.38	86.9%	(26-135)	9.56%	(60)	03/03/10 19:29	
Benzo (a) pyrene		"	1.24		0.381	"	"	ND	"	52.2%	(38-137)	1.79%	5 "	"	
Pyrene		"	2.43		0.381	"	"	0.515	"	80.5%	(33-133)	7.06%	· "	"	
Surrogate(s):	Fluorene-d10		Recovery:	79.9%	Lin	its: 25-125%								03/03/10 19:29	
	Pyrene-d10			77.7%		23-150%	ó							"	
	Benzo (a) pyrene-d12			39.7%		10-125%	6							"	

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6350 NW Front Ave Project Number: [none] Report Created:
Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

•	Phthalates per EPA 8270-SIM	-	Laboratory Quality Control Results
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TestAmerica Portland

A I 4	M 4 1	n 1:	ME	4 MD1	TT. *4	ъч	Source	Spike	0/0	σ:- ·· ·	0/0	a : ·) A	3 . T
Analyte	Method	Result	MDI	L* MRL	Units	Dil	Result	Amt	REC	(Limits)	RPD	(Limits) Analyzed	No
Blank (10B0742-BLK1)								Extr	acted:	02/25/10 13	:25			
Dimethyl phthalate	EPA 8270m	ND		1.00	ug/l	1x							03/03/10 17:06	
Diethyl phthalate	"	ND		1.00	"	"							"	
Di-n-butyl phthalate	"	ND		1.00	"	"							"	
Butyl benzyl phthalate	"	ND		1.00	"	"							"	
Bis(2-ethylhexyl)phthalate	"	ND		1.00	"	"							"	
Di-n-octyl phthalate	"	ND		1.00	"	"							"	
Surrogate(s): 2-Fluorobiph p-Terphenyl-o	*	Recovery:	71.1% 83.7%	Li	mits: 10-150 10-150								03/03/10 17:06	
LCS (10B0742-BS1)								Extr	acted:	02/25/10 13	:25			
Dimethyl phthalate	EPA 8270m	3.12		1.00	ug/l	1x		4.00	78.0%	(20-150)			03/03/10 17:39	
Diethyl phthalate	"	3.25		1.00	"	"		"	81.3%	"			"	
Di-n-butyl phthalate	"	3.40		1.00	"	"		"	84.9%	"			"	
Butyl benzyl phthalate	"	3.42		1.00	"	"		"	85.6%	"			"	
Bis(2-ethylhexyl)phthalate	"	3.16		1.00	"	"		"	79.0%	"			"	
Di-n-octyl phthalate	"	2.77		1.00	"	"		"	69.2%	"			"	
Surrogate(s): 2-Fluorobiph p-Terphenyl-o		Recovery:	66.8% 76.6%	Li	mits: 10-150								03/03/10 17:39	
Matrix Spike (10B0742-M	MS1)			QC Source	: PTB0681-	02		Extr	acted:	02/25/10 13	:25			
Dimethyl phthalate	EPA 8270m	3.58		3.81	ug/l	4x	0.612	3.81	77.8%	(10-150)			03/03/10 18:13	
Diethyl phthalate	"	3.21		3.81	"		ND	"	84.3%	"			"	
Di-n-butyl phthalate	"	2.56		3.81	"	"	ND	"	67.3%	"			"	
Butyl benzyl phthalate	"	2.28		3.81	"		ND	"	59.9%	"			"	
Bis(2-ethylhexyl)phthalate	"	2.59		3.81	"	"	1.01	"	41.5%	"			"	
Di-n-octyl phthalate	"	1.60		3.81	"	"	ND	"	42.1%	"			"	
Surrogate(s): 2-Fluorobiph p-Terphenyl-o	*	Recovery:	74.4% 81.4%	Li	mits: 10-150								03/03/10 18:13	
Matrix Spike Dup (10B0'	742-MSD1)			QC Source	: PTB0681-	02		Extr	acted:	02/25/10 13	:25			
Dimethyl phthalate	EPA 8270m	3.83		3.81	ug/l	4x	0.612	3.81	84.5%	(10-150)	6.86%	(50)	03/03/10 18:47	
Diethyl phthalate	"	3.39		3.81	"	"	ND	"	89.0%	"	5.43%	, "	"	
Di-n-butyl phthalate	"	2.59		3.81	"		ND	"	67.9%	"	0.8989	6 "	"	
Butyl benzyl phthalate	"	2.25		3.81	"	"	ND	"	59.2%	"	1.12%	, "	"	
Bis(2-ethylhexyl)phthalate	"	2.21		3.81	"	"	1.01	"	31.5%	"	16.0%	, "	"	
Di-n-octyl phthalate	"	1.55		3.81	"	"	ND	"	40.7%	"	3.54%	, "	"	
Surrogate(s): 2-Fluorobiph p-Terphenyl-i	*	Recovery:	82.3% 89.4%	Li	mits: 10-150								03/03/10 18:47	

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Becan L Come

Brian Cone, Industrial Services Manager





6350 NW Front Ave Project Number: [none] Report Created:
Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

Со	nventional Che	mistry Para	•		rd Metho a Portland	ds - L	aborato	ry Quality Control Results
QC Batch: 10B0784	Water P	reparation M	lethod: Ge	neral				
Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike % (Limits) % (Limits) Analyzed Notes
Blank (10B0784-BLK1)								Extracted: 02/26/10 10:39
Total Suspended Solids	SM 2540D	ND		10.0	mg/l	1x		02/26/10 18:37
LCS (10B0784-BS1)								Extracted: 02/26/10 10:39
Total Suspended Solids	SM 2540D	60.0		10.0	mg/l	1x		60.0 100% (80-120) 02/26/10 18:37
Duplicate (10B0784-DUP1)				QC Source:	PTB0683-0	1		Extracted: 02/26/10 10:39
Total Suspended Solids	SM 2540D	10.0		10.0	mg/l	1x	10.0	0.00% (20) 02/26/10 18:37

QC Batch: 10B0785	Water P	reparation M	ethod: Ge	eneral										
Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike G Amt R	% EC	(Limits)	% RPD	(Limits) Analyzed	Notes
Blank (10B0785-BLK1)								Extract	ted: 0	2/26/10 11	:18			
Total Organic Carbon	SM 5310C	ND		1.00	mg/l	1x							02/27/10 20:56	
LCS (10B0785-BS1)								Extract	ted: 0	2/26/10 11	:18			
Total Organic Carbon	SM 5310C	19.6		1.00	mg/l	1x		20.0 98	3.0%	(85-115)			02/27/10 20:56	
Duplicate (10B0785-DUP1)				QC Source:	PTB0631-	01		Extract	ted: 0	2/26/10 11	:18			
Total Organic Carbon	SM 5310C	1.35		1.00	mg/l	1x	1.68				21.6%	(20)	02/27/10 20:56	R2
Matrix Spike (10B0785-MS1)				QC Source:	PTB0631-	01		Extract	ted: 0	2/26/10 11	:18			
Total Organic Carbon	SM 5310C	28.3		1.03	mg/l	1x	1.68	25.6 10	04%	(75-125)			02/27/10 20:56	

TestAmerica Portland

Becan L Come

Brian Cone, Industrial Services Manager



9405 S.W. NIMBUS AVENUE BEAVERTON, OR 97008-7132 ph: (503) 906.9200 fax: (503) 906.9210



CertainTeed Roofing Products Group **Stormwater Assessment** Project Name:

6350 NW Front Ave Project Number: Report Created: [none] Portland, OR 97210 Project Manager: Tony Ordway 03/10/10 17:14

Notes and Definitions

Report Specific Notes:

M8 The MS and/or MSD were below the acceptance limits. See Blank Spike (LCS).

P4 Sample received in inappropriate sample container.

O10 Hydrocarbon pattern most closely resembles a blend of oil as well as biogenic interference.

Q12 Detected hydrocarbons in the diesel range do not have a distinct diesel pattern and may be due to heavily weathered diesel or possibly biogenic interference.

R2 The RPD exceeded the acceptance limit.

RL1 Reporting limit raised due to sample matrix effects.

Laboratory Reporting Conventions:

DET Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.

Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate). ND

NR/NA Not Reported / Not Available

Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight. dry

Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported wet

on a Wet Weight Basis.

RPD RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries).

MRL METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.

MDL* METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported

as Estimated Results.

Dil Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the

dilution found on the analytical raw data.

Reporting -Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and Limits

percent solids, where applicable.

Electronic - Electronic Signature added in accordance with TestAmerica's Electronic Reporting and Electronic Signatures Policy. Signature Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory.

Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report shall not be reproduced except in full, without the written approval of the laboratory

TestAmerica Portland

9405 SW Nimbus Avenue

Beaverton, OR 97008

phone 503.906.9200 fax 503.906.9210

Chain of Custody Record

TestAmerica

** Run Ms, Msd, Dup, TB on Outfall B Temperature Upon Receipt: 2. 4 oc 1. 4 oc Work Order # TestAmerica Laboratories, Inc. * Run Dup on Outfall B Sample Specific Notes: 0460 Procus 02-23-10 Date/Time: IN LAB: Company: Test America Portland ELL × Time Chemist Hour: × Sampling Event-Grab × × **0928 × X × *sətsisdə MIS 0728 8270 Semivolatiles* × X × *HA9 MIS 0728 × хĐ DX × × × Ag, Al, As, Cd, Cu, Hg, Mn, Ni, Pb, Sb, Se, × × 201 1350 SST × × FT-pH OutfallB: 88.9 × L7-L Eiltered Sample FT-PH Outfall A: × # of Cont. 14 02-23-10 20 Analysis Turnaround Time Date/Time: Preservation Used Matrix Water Water 1, 2, 4 1, 2, 4 Test America Portland Sample (320 (250 Time Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other Sample Date 62-29 02-23 Company: Special Instructions/QC Requirements & Comments: Sample Identification Phone FAX Certain Teed Roofing Products Group Project Name: Stormwater Monitoring Outfall B Outfall A -aboratory PM: Brian Cone Client PM: Tony Ordway 6350 NW Front Ave. Portland, OR 97210 Lawrence Spangler Sampled By: Lawrence Spangler 503-222-1307 503-248-9271 Received by:

TestAmerica Portland Sample Receiving Checklist

Work Order #: PTB008 Date/Time Received: 02-24-10 /0900 Client Name and Project: CECTAIN						
Time Zone: □EDT/EST □CDT/CST □MDT/MST □PDT/PST □AK □OTHER						
Coo	oler #(s erature	Temperature out of Range: Not enough or No Ice Ice Melted W/in 4 Hrs of collection Other:				
N/A	Yes	No Initials:				
\square		1. If ESI client, were temp blanks received? If no, document on NOD.				
\		2. Cooler Seals intact? (N/A if hand delivered) if no, document on NOD.				
	X	3. Chain of Custody present? If no, document on NOD.				
	\(\times\)	4. Bottles received intact? If no, document on NOD.				
		5. Sample is not multiphasic? If no, document on NOD.				
	X	6. Proper Container and preservatives used? If no, document on NOD.				
		7. pH of all samples checked and meet requirements? If no, document on NOD.				
\Box		8. Cyanide samples checked for sulfides and meet requirements? If no, notify PM.				
9. HF Dilution required?						
()		10. Sufficient volume provided for all analysis? If no, document on NOD and consult PM before proceeding. 11. Did chain of custody agree with samples received? If no, document on NOD. Times and the samples received?				
	<u>Z</u>	☐ 12. Is the "Sampled by" section of the COC completed?				
П		11. Did chain of custody agree with samples received? If no, document on NOD. 12. Is the "Sampled by" section of the COC completed? 13. Were VOA/Oil Syringe samples without headspace?				
		☐ 14. Were VOA vials preserved? ☐ HCl ☐ Sodium Thiosulfate ☐ Ascorbic Acid				
.—		15. Did samples require preservation with sodium thiosulfate?				
		16. If yes to #15, was the residual chlorine test negative? If no, document on NOD.				
ZZI Z		17. Are dissolved/field filtered metals bottles sediment-free? If no, document on NOD.				
- X -	X	18. Is sufficient volume provided for client requested MS/MSD or matrix duplicates? If				
X		no, document on NOD and contact PM before proceeding. 19. Are analyses with short holding times received in hold?				
Birmania.	\square	20. Was Standard Turn Around (TAT) requested?				
	Ŋ	21. Receipt date(s) < 48 hours past the collection date(s)? If no, notify PM.				
	2					

IB NOT ON COC

TestAmerica Portland Sample Receiving Checklist

Work Order #: PTBOLS\

Login Checks: Initials:							
_			Initials:				
N/A	Yes	No	22 Sufficient volume provided for all analysis and a second				
			22. Sufficient volume provided for all analysis? If no, document on NOD & contact Pl				
		Ш	23. Sufficient volume provided for client requested MS/MSD or matrix duplicates? If				
			no, document on NOD and contact PM.				
		Ll	24. Did the chain of custody include "received by" and "relinquished by" signatures,				
	1	_	dates and times?				
		Н	25. Were special log in instructions read and followed?				
			26. Were tests logged checked against the COC?				
			27. Were rush notices printed and delivered?				
		Ц	28. Were short hold notices printed and delivered?				
otag			29. Were subcontract COCs printed?				
\square	Ш	Ш	30. Was HF dilution logged?				
Labeling and Storage Checks: Initials:							
N/A	Yes	No					
Z			31. Were the subcontracted samples/containers put in Sx fridge?				
Z			32. Were sample bottles and COC double checked for dissolved/filtered metals?				
	Z		33. Did the sample ID, Date, and Time from label match what was logged?				
			34. Were Foreign sample stickers affixed to each container and containers stored in				
			foreign fridge?				
\mathbb{Z}			35. Were HF stickers affixed to each container, and containers stored in Sx fridge?				
			36. Was an NOD for created for noted discrepancies and placed in folder?				
Document any problems or discrepancies and the actions taken to resolve them on a Notice of Discrepancy form (NOD).							



Sampling Documentation Form

Client: Certain Teed Roofing Products Group Site: Outfall A, CB1	Sampler: Lawrence Spangler Date: 02-23-10						
Project: Stormwater Monitoring	Time: 1305						
Sample Matrix: Water							
Sampling Method: Grab							
Grab Sampling Equipment: Into Bottle and Dipper Outfall A Time: 1320 Outfall B Time: 1350							
Field Data: pH Meter: Orion 3 Star pH: Outfall A 227 Time Taken: (325) pH: Outfall B 699 Time Taken: (357) pH calibration-7.00 buffer reading: 2 04 pH calibration slope: (6) pH 4 Buffer: 9090085 pH 7 Buffer: 9090084 pH 10 Buffer: 9090087							
	oudy □ Snowing ermittent□ Light □ None						
Sample Characteristics: Color: Tan Odor: TSS: Sediment: Foam: Clear:							
Observations and Comments: TOOK 1/2 hours for rain to Start Flow. Are were a Brown Darish Figure. It rained for And for Almost 3 days prior to Sampling.	eas were clean and sampho ut 16 hours. There was no Rain Foll						